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IMPROVING THE COLLECTION AND DISSEMINATION OF INFORMATION OF WINTER HEATING FUELS AND THE EIA'S REPORT ON HEATING OIL MARKETS

HEARING

BEFORE THE

SUBCOMMITTEE ON
ENERGY REGULATION AND CONSERVATION

OF THE

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

ON

S. 2177

TO IMPROVE THE COLLECTION AND DISSEMINATION OF INFORMATION RELATING TO THE SUPPLY OF WINTER HEATING FUELS, AND FOR OTHER PURPOSES

AND

EIA's REPORT ON HEATING OIL MARKETS

JULY 26, 1990

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IMPROVING THE COLLECTION AND DISSEMINATION OF INFORMATION OF WINTER HEATING FUELS AND THE EIA'S REPORT ON HEATING OIL MARKETS

THURSDAY, JULY 26, 1990

U.S. Senate,
Subcommittee on Energy Regulation
and Conservation,
Committee on Energy and Natural Resources,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:15 p.m., in room SD-366, Dirksen Senate Office Building, Hon. Timothy E. Wirth, presiding.

STATEMENT OF HON. TIMOTHY E. WIRTH, U.S. SENATOR FROM COLORADO

Senator Wirth. The subcommittee will come to order. I thank my distinguished colleagues for their patience.

The subcommittee today is beginning an attempt to better understand how to prevent winter heating crises. The importance of our energy preparedness is underscored, even on this hot summer day, as the Iraqi President Saddam Hussein has moved 30,000 of his troops to his border with Kuwait, threatening a new war amid accusations that Kuwait is pilfering Iraqi oil. Could world events, combined with a sustained cold snap, paralyze our country?

We have with us two of our colleagues from the Senate, Senators Lieberman and Levin, who will share their views on the hardships that consumers experienced during last winter's extreme cold and the need for a better Federal response. I will introduce our other panelists later, and would like to move right away.

[The prepared statements of Senators Wirth, McClure and Nickles, and the text of S. 2177 follows:]

Prepared Statement of Hon. Timothy E. Wirth, U.S. Senator From Colorado

We are here today to receive testimony on S. 2177, a bill to improve the collection and dissemination of heating fuels information, and to hear from a variety of experts on their assessments of last winter's price spikes, responses to the crisis, and what we might do to improve responses to future cold snaps.

Senators Lieberman and Levin will share their views on the hardships that consumers experienced during last winter's extreme cold, and the need for a better Federal response.

Assistant DOE Secretary Easton and Dr. Merklein of the Energy Information Administration will then give us the Administration's views of what happened during last Winter's crisis, and the steps DOE will undertake in the future to coordinate with other Federal agencies and the States to ensure emergency preparedness. In that regard, the subcommittee understands that DOE will announce a Memorandum of Agreement with other Federal agencies that will cut through interagency red tape on energy cargoes if an emergency arises. We will be looking forward to learning the details of this agreement.

Finally, the subcommittee will hear testimony from a panel of experts with differing views on the causes for the crisis, its impacts, and what might be done to prevent future crises when mountains of extremely cold air descend from the Arctic and settle over large portions of this country.

The Deputy Commissioner for Policy and Planning of the New York State Energy Office will speak on his agency's responses to the crisis on behalf of consumers. He will be representing the National Association of State Energy Officials, whose obligation is to promote energy emergency planning and preparedness to protect public health and welfare.

The Commissioner will be followed by John Lichtblau of the Petroleum Industry Research Foundation, who has testified many times before the Energy Committee on all facets of the petroleum industry.

The panel also includes the head of gas supply and planning for Public Service Gas and Electric, a large New Jersey-based electric and gas utility that had to interrupt its industrial gas customers in order to provide needed amounts of gas to its residentials. PSE&G was also forced to switch from gas to oil to generate electricity during the cold spell. We will be interested to hear Mr. Gartman's experiences in those volatile markets.

The subcommittee will also hear from David Langley of Texas Eastern Products Pipeline, which provides propane transportation, storage, and terminaling services to the Northeast. Texas Eastern does not produce or sell propane. Mr. Langley will describe how the pipeline prepares for a cold winter, and how the extreme cold affected Texas Eastern's propane transportation and storage operations.

Finally, a New York City-based representative of the Petroleum Marketers Association of America will testify on the fuel oil dealers-reaction to the sustained cold wave, and the varied problems they faced during the crisis.

The subcommittee would note that the written testimony submitted by Dr. Merklein in advance of this afternoon's hearing announces EIA's intent to collect and disseminate additional frequent information on heating oil and propane. In preparation for next winter, EIA will expand its current heating fuel monitoring capability. Finally, EIA will acknowledge the need for a more detailed study of how interruptible gas contracts performed last winter.

These steps appear to address some of the concerns addressed in Senator Lieberman's bill. I congratulate you and Senator Levin for introducing S. 2177, which appears to have motivated EIA to take action.

The subcommittee will be most interested to hear the various perspectives of these diverse panelists as we try to understand how to prevent winter heating crises in the future. The importance of our energy preparedness is underscored even during the heat of the summer as Iraqi President Saddam Hussein has moved 30,000 of his troops to his border with Kuwait, threatening a new war amid accusations that Kuwait is pilfering Iraqi oil. Could world events combine with a sustained cold snap to paralyze the country?

PREPARED STATEMENT OF HON. JAMES A. MCCLURE, U.S. SENATOR FROM IDAHO

Before I comment on the matters which are the subject of today's hearing, I would first like to say a few words about Dr. Merklein who is appearing today at what is probably his last hearing—at least in his current capacity as the Administrator of the Energy Information Administration.

Dr. Merklein has been with the Department of Energy since late 1983, first as the Assistant Secretary for International Affairs and subsequently as the EIA Administrator.

In both capacities, Dr. Merklein has demonstrated the highest level of professionalism and expertise. I want to personally thank Dr. Merklein for his years of public service and to wish him the best in his future endeavors.

Now with respect to the subject of today's hearing, let me first say that while I generally support efforts to improve the collection and dissemination of energy data, before we mandate it by law I need to be convinced that the data would be accurate, useful and cost-effective. I am not yet convinced that the data which would be collected pursuant to the requirements of this bill would meet any of those tests. I look forward to receiving the Administration's views on those questions.

Of particular concern to me are the other provisions of S. 2177 which would require the Secretary of Energy to establish before each heating season "recommended" State, regional and national inventories of heating oil and propane, and national inventories of natural gas. That would be one small step short of mandating such inventories. I am opposed to either the Federal Government or the private sector being required to establish or maintain regional product or crude oil reserves.

Our Strategic Petroleum Reserve is intended to assure continued supplies of oil in the event of a supply emergency; it is not intended to be a means to manipulate the price of oil. Thus, I am also opposed to the provisions in the recently House-passed amendments to EPCA which would require that the Strategic Petroleum Reserve be restructured to include seasonal product reserves. The SPR is there to respond to international shortages that threaten our national economy, not for the dampening of market driven price changes. The SPR must be preserved for the purpose it was intended.

While I am speaking about the Strategic Petroleum Reserve, I must observe that the developing situation between Iraq and Kuwait now carries a potential threat to a major share of the free-world's oil supply. The Administration has reaffirmed our commitment to keep the Persian Gulf shipping lanes open and the oil flowing, and we now have six U.S. Naval war ships there for just that purpose. As much as anything, that is a tacit acknowledgement that oil supplies can be interrupted—just as they were in 1973 and 1979—and that such an interruption would have major economic, political and social consequences for the United States. At the risk of sounding the horn too often, I would once again say that that is why we need a national energy policy.

Now let me briefly comment on the issue of the heating oil price spike last winter, which is the subject of the EIA report. The report concludes that the price spike was caused by the simultaneous occurrence of the coldest winter in 60 years and transportation problems, refinery mishaps and the freezing of pipes and gas wells. While that was unfortunate and undesired, the report also shows that as soon as the weather warmed up, prices fell. The market responded as expected to provide the necessary supplies. The fact that some believe that prices were too high is not an adequate justification for Federal intervention in the market.

I look forward to hearing the witnesses today.

PREPARED STATEMENT OF HON. DON NICKLES, U.S. SENATOR FROM OKLAHOMA

Mr. Chairman, this hearing is an important opportunity to review last winter's heating fuel price increases and the recent report issued by the Energy Information Administration, "An Analysis of Heating Fuel Market Behavior, 1989–1990." In my area of the country, last December's record cold temperatures resulted in very significant price increases in propane. Therefore, it was appropriate that the EIA report included an analysis of the propane supply and price situation in its report.

The EIA report observed that propane prices "proved to be even more volatile than those of heating oil during the winter to 1989–90," despite the fact that September 1989 stocks were between 5 and 6 percent higher than propane stocks in September 1985 or 1987. Contributing to the problem in the Southwest was the 4 percent loss in propane production due to the cold weather. Similarly in the Northeast, propane supplies were stressed by a reduction in imported propane—because early cold weather in Europe had drawn down world supplies.

The basic problem was the extraordinary weather. The EIA report indicates that in December alone, national propane stocks dropped over 30 percent from the September stock levels, a 28 percent increase over withdrawals compared to December of 1988. It simply would not be practical to expect retailers and wholesalers to stock propane in sufficient quantities to meet this type of semi-centennial cold wave without a ripple in "normal" pricing.

The members of this committee should take note of the EIA's conclusions that: ". . . in the face of extraordinary and unexpected increases in demand, petroleum markets performed as might have been expected. The distribution system responded to temporary imbalances in supply and demand through higher prices, which were quickly followed by increased supplies and declining prices, approaching those of last November."

Despite the coldest winter in the Northeast in 60 years, there were no significant shortages of fuel oil. This compares very favorably to the crisis situation that occurred during the winter of 1977–1978, when massive natural gas and fuel oil shortages crippled the Midwest and Northeast. Despite current limitations in interstate natural gas pipeline capacity, we are fundamentally better off today than in the late seventies because the Petroleum Price and Allocation Controls have been removed and natural gas production and transportation is decidedly less regulated by the Federal Government.

This hearing also will receive comments on S. 2177. I will be very interested to hear the testimony on whether weekly publication of prices can meaningfully be added to the EIA's Weekly Petroleum Status Report. However, I am very wary of the direction this bill takes in having the EIA establish "Recommended Adequate Inventory Levels" for No. 2 distillate, propane and natural gas. I cannot imagine it would be helpful to recommend stock levels adequate to meet the fuel requirements of a fifty-year winter without "substantial disruptions in supply or substantial price increases", as required by this bill.

Mr. Chairman, I look forward to the witnesses' comments.

101st CONGRESS
2d Session

S. 2177

To improve the collection and dissemination of information relating to the supply of winter heating fuels, and for other purposes.

IN THE SENATE OF THE UNITED STATES

February 26 (legislative day, January 23), 1990

Mr. Lieberman (for himself, Mr. Levin, Mr. Kohl, Mr. Cohen, Mr. Pell, Mr. Dodd, Mr. Moynihan, Mr. Leahy, Mr. Bradley, Mr. Grassley, and Mr. Daschle) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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A BILL

To improve the collection and dissemination of information relating to the supply of winter heating fuels, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. DEFINITIONS.

For the purposes of this Act—

(1) the term "No. 2 distillate" means home heating oil and diesel fuel;

(2) the term "Secretary" means the Secretary of Energy; and

(3) the term "winter heating season" means the period beginning on October 1 of a year and ending on April 30 of the following year.

SEC. 2. SURVEY OF FUEL PRICES AND INVENTORIES.

During the winter heating season, the Energy Information Administration shall collect and publish on a weekly basis—

(1) surveys of wholesale and residential prices, and primary inventories, of No. 2 distillate and propane on a national, State, and PADD region basis;

(2) surveys of wholesale prices and primary inventories of No. 2 distillate and propane on a company-by-company basis (without identifying the names of such companies); and

(3) surveys of wellhead and citygate prices of natural gas for the major interstate pipelines, and working natural gas and base natural gas inventories in underground storage for interstate and intrastate operators.

SEC. 3. RECOMMENDED ADEQUATE INVENTORY LEVELS.

(a) In General.—In consultation with State energy offices and the Energy Information Administration, the Secretary shall establish recommended adequate primary inventory levels for No. 2 distillate and propane on a State-by-State, PADD region, and national basis, and recommended adequate inventory levels of natural gas in underground storage on a national basis before each winter heating season.

(b) MINIMUM LEVEL.—The recommended adequate inventory levels established under section (a) shall exceed the levels that are regarded as minimum operating levels, below which levels operating problems and shortages would appear in the national distribution system, and shall constitute the amount of inventories necessary to prevent substantial disruptions in supply or substantial price increases.

SEC. 4. NOTIFICATION OF INVENTORY LEVELS.

(a) PRE-SEASON NOTIFICATION.—On or before October 1 of each year, the Secretary shall notify Congress, the President, and State energy offices concerning whether on a national, regional, or State level, inventories of No. 2 distillate, propane, and natural gas meet the recommended adequate inventory levels established under section 3 for the winter heating season.

(b) SUPPLEMENTAL NOTIFICATIONS.—If, at any time during the winter heating season, inventories fall below the recommended adequate inventory levels in any State or PADD region, the Secretary shall notify Congress, the President, and the State energy offices for the States in question.

SEC. 5. REPORT ON INTERRUPTIBLE NATURAL GAS CONTRACTS.

The Secretary shall conduct a study of the effect, if any, of interruptible natural gas contracts on the demand and supply of No. 2 distillate and propane during the 1989–90 winter heating season. The Secretary shall issue a report on the findings of the study no later than 6 months after the date of enactment of this Act. The report shall include any recommendations concerning alternate fuel storage requirements for holders of interruptible natural gas contracts and recommendations concerning other matters relevant to the purposes of this Act.

Senator WIRTH. Senator Levin is the senior of the two. Why do you not begin? Or it is Senator Lieberman's legislation? I always defer to seniority with the dutiful response of a relatively junior member. I hope you appreciate that.

Senator LEVIN. Believe me, we do, and I hope you will set a great precedent for this place.

[Laughter.]

Senator WIRTH. Senator Lieberman, as the most junior member, why don't you proceed?

STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM CONNECTICUT

Senator LIEBERMAN. Thank you for reminding me. I always tell Senator Burns how much I like him, because he is the only person around who gives me any status, being one under me in seniority. Actually, I was going to defer to Senator Levin as well, but he asked me to go first, and I thank him and you.

I thank you for convening this important hearing and giving us an opportunity to testify, because it really matters a lot to people in our States and throughout the country. Seven months have past since the bitter cold struck much of the country last December. It seems a bit out of sync to be talking about this today on a warm July afternoon, but if we do not talk about it today and do something about it soon, the problem is going to come back again next winter and winters afterward, and we and our consumer constituents are going to be paying too much for fuel.

The reality is that consumers have not forgotten how the price of heating oil and propane skyrocketed overnight, and families who needed energy assistance have not forgotten how they had to scramble to get fuel to keep warm or what they had to pay to get it.

In Connecticut alone, the average price of heating oil jumped from 95 cents a gallon to $1.42 in the month of December, and heating oil cost for Connecticut in December and January rose $100 million higher than expected in one relatively small State, so you can appreciate the impact of this change.

In some areas of the country people relying on propane for heat were simply unable to get it at any price. It is difficult to imagine, really, what would have happened if December had not been followed, as it was, by an unseasonably warm January.

During January of this year, Senator Levin and I conducted a hearing on the Senate Government Affairs Committee on the heating oil crisis. That hearing began the examination of some of the difficult questions that were raised by the shortage and price jump in December. Those questions since have been analyzed by a task force of the National Association of Attorneys General and by the Energy Information Administration, which I know you will hear from this afternoon.

Those efforts are laudable, but I do not think we have gotten definitive answers yet to many of the questions, particularly the critical question of what we can do to improve our ability to handle and anticipate the next energy crisis that comes along, and as you suggest, Mr. Chairman, it may not come only from unusually cold weather. It may come from international political action that causes an unnatural shortage in fuel.

Following our hearing in January, Senator Levin and I drafted legislation to try to improve our preparedness. S. 2177 would require the Energy Department to establish a recommended adequate inventory level of heating fuels and to notify Congress and the States of how our inventory levels stack up at the outset of the heating season. It would also require collection of additional price and inventory data by EIA and an Energy Department study of the interruptible natural gas contracts and the availability of heating oil and propane.

Unlike electricity, heating oil and propane are not regulated, though for most of us they are equally essential commodities. People depend on them to survive in the winter. If Government regulation does not assure an adequate supply at less than astronomical prices, then we have got to figure out a way to help.

I know there are those who say that companies should be required to hold a reserve at various locations, or that the Government should establish a regional refined product reserve, as Congressman Sharp has suggested. I think that a reasonable first step, however, would be to try to establish some type of early warning system with timely information on inventory and prices so that some action can be taken before we are in the middle of a full-blown crisis, as we were last December, and that, in short, is the intent of our bill.

Stocks of heating oil have steadily declined over the course of this decade. At the end of last October, before the price jump, inventories were approximately 9 million barrels below the previous year's levels and over 30 million barrels below 1983 levels. EIA notes that last year's October inventory level was about the same as that for October 1987, but '87 was the only other year in this decade with comparably low inventory levels.

Now, I understand that there is a cost of maintaining higher inventories, and therefore a possible benefit to consumers, short term, in lower inventories. But the question I think we have all got to ask ourselves is whether the cost of keeping somewhat higher inventories over time outweighs the cost of severe dislocations when we are caught short, as we were last December.

I believe that the Department of Energy should be able to develop a range of recommended inventory levels that would be adequate depending upon the weather and compare it to existing stocks to see where we stand coming into the winter.

Now, Dr. Merklein, who will testify later today, testified before a House Appropriations Subcommittee in April that, and I quote, "Yes, in retrospect there was a shortage." He is referring to last winter. "There were not sufficient inventories. Could anyone have guessed? Did the State officials guess, did the corporations guess, did the Federal Government guess in September that they would be inadequate? The answer is, reasonably, they did not."

Well, it is my belief that the Federal Government can and should do better than that. At the very least, we should know what inventories are reasonably necessary to avoid a crisis should an early cold snap hit, and know in a timely manner how our inventories stack up against that estimate. That could certainly give Federal and State Governments more time to address some of the factors that they could only look back on and analyze retrospectively last year, and of course it would allow us to improve our preparedness.

Another lesson from last winter is the importance of timely and accurate data on inventory and prices, and our legislation would require EIA to publish weekly prices and inventories of heating oil, propane and natural gas on a State-by-State, regional and national basis.

Now, I know that there is concern that some of these data collection requirements would be expensive to implement. It is my hope, however, that working with EIA we can develop ways to limit the cost of gathering timely and accurate data. For example, Dr. Merklein has correctly noted there is no need for data from all 50 States, many of which do not rely on these heating fuels. Perhaps data concerning a particular fuel such as propane could be collected only for those States in which that fuel accounts for a substantial portion of the States' heating fuel consumption.

Another contributing factor to last winter's crisis was the so-called interruptible natural gas contracts, and those are ones which require large industrial users and electric utilities to switch from gas to alternate fuels when demand for gas is high. These contracts can benefit those consumers, those companies that have them by reducing prices, but when large users enter a tight heating oil market because they have been cut off, they can dramatically increase demand and drive escalating prices even higher. And many people believe that that is just what happened last December.

EIA began examining this issue in its final report, but concluded "that there currently exists insufficient data to estimate the proportion of this unanticipated demand attributable to interrupted natural gas."

The purpose of the study called for and the legislation introduced by Senator Levin and me is to fill in this missing information so that we can understand the impact of these contracts on heating oil and propane markets.

Finally, though not addressed in our legislation, I would urge the Committee to consider seriously the need to revise the requirements for granting waivers of the Jones Act. A domestic energy crisis like last December's, with tight supply and spiraling prices, should be a justification for a waiver and for a streamline procedure for granting a waiver.

Mr. Chairman, I thank you again for giving me this opportunity to testify and I look forward to continuing to work with Senator Levin and with you and this Subcommittee on this legislation.

Thank you very much.

[The prepared statement of Senator Lieberman follows:]

STATEMENT OF SENATOR JOSEPH I. LIEBERMAN
SUBCOMMITTEE ON ENERGY REGULATION AND CONSERVATION
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
JULY 26, 1990

I want to thank Senator Wirth, the Chairman of this Subcommittee, for convening this important hearing and for giving me the opportunity to testify.

Seven months have passed since bitter cold struck much of the country last December. But consumers have not forgotten how the price of heating oil and propane skyrocketed overnight, and families who needed energy assistance have not forgotten how they had to scramble to get fuel to keep warm or what they had to pay to get it. In Connecticut, the average price of heating oil jumped from 95 cents a gallon to $1.42 a gallon in the month of December, and heating oil costs for Connecticut consumers in December and January were $100 million higher than expected. In some areas of the country, people relying on propane for heat were simply unable to get it at any price. It is difficult to imagine what would have happened if December had not been followed by an unseasonably warm January in most areas.

On January 16th, I chaired a hearing of the Senate Governmental Affairs Committee on the heating fuels crisis. That hearing began the examination of the difficult questions posed by the events of last winter: Why were inventories so low coming into the heating season? Why did prices rise so fast, who profited from these high prices? Did the government do all it could to anticipate and respond to the crisis? Did we take care of those most in need of assistance? What can we do to be better prepared for the next energy crisis?

These questions have since been analyzed in more detail by the Task Force convened by the National Association of Attorneys General -- whose efforts are continuing -- and by the Energy Information Administration's Final Report on the heating fuel market in 1989-1990. I don't think we have gotten definitive answers to many of these questions yet, particularly the last and most important question of what we can do to improve our ability to handle the next energy crisis. We cannot simply point to the convergence of unusual factors that combined to create last winter's crisis, and assume it won't happen again. Many of these factors were directly related to sudden, severely cold weather, and weather being what it is, it will inevitably happen again.

Following the Governmental Affairs Committee hearing in January, Senator Levin and I drafted legislation to try to improve our preparedness. S.2177 would require the Energy Department to establish recommended adequate inventory levels of heating fuels and to notify Congress and the States of how our inventory levels stack up at the outset of the heating season. It also would require collection of additional data on prices and inventories by EIA and an Energy Department study of the effect of interruptible natural gas contracts on the availability of heating oil and propane.

In essence, our bill calls for more information and a kind of early warning system to improve our ability to handle a sudden, unexpected cold snap. Unlike electricity, heating oil and propane are not regulated, though they are equally essential commodities. People depend on them to survive in the winter. If government regulation doesn't assure an adequate supply at less than astronomical prices, then we must have some other system in place. Companies could be required to hold a reserve various locations. Or the government could establish a regional refined product reserve, as Rep. Sharp has urged. A reasonable first step, however, would be to try to establish some type of early warning system with timely information on inventories and prices -- so that some action can be taken before we are in the middle of a full-blown crisis like last December's.

Low inventories. The EIA Final Report seems to suggest that low inventories at the beginning of the heating season were not a major factor in last year's problems. This contradicts the testimony of a number of the witnesses at the January hearing, who cited low heating fuel inventories as one of the causes of the tight market and skyrocketing prices in December, and Dr. Merklein's recent testimony before a House Appropriations subcommittee, when he testified that low inventory levels were a "very significant" factor contributing to the potential shortages and run-up in prices. (Hearings before House Appropriations Subcommittee on the Dept. of Interior and Related Agencies, Pt.

8, pp. 45-46.) The report of the NAAG Task Force echoes this conclusion.

Stocks of heating oil have steadily declined over the course of this decade, and at the end of last October, inventories were approximately 9 million barrels below the previous year's levels and over 30 million barrels below 1983 levels. If you look at earlier years, stocks of home heating oil were roughly 100 million barrels lower last October than they were at the same point during the years 1975 - 1981. (NAAG Report, Exh. 1.) EIA notes that last year's October inventory level for distillate was about the same as that for Oct. 1987 -- 121 million barrels-- and concludes that last year's levels were therefore not unusually low. But 1987 was the only other year in this decade with comparably low inventory levels. Moreover, even in 1987, by the end of November inventories had increased to 128 million barrels, while last year they had decreased by November to 119 million barrels. (EIA Report, p. E-6.)

The EIA Report notes that the declining inventories in heating fuels paralleled declining inventories in manufacturing generally over the last decade. (EIA Report, p. 36.) But this misses a fundamental point -- heating fuels, unlike manufactured products generally, are a necessity. People need them to survive; no matter how high the price goes, they can't forego heating their homes in the dead of winter. So we must take note of low inventories that leave us vulnerable to severe price fluctuations during early cold periods.

I understand that there is a cost to maintaining higher inventories, and therefore a possible benefit to consumers in lower inventories. The question is whether the cost of keeping somewhat higher inventories over time outweighs the costs of severe dislocations when we are caught short, like last December.

Recommending Adequate Inventory Levels. The Department of Energy should be able to develop a range recommended inventory levels that would that be adequate depending on the weather-- recommending, for example, an inventory range going into the heating season that would be reasonably adequate if December were 5% colder than normal, 25% colder than normal, etc., -- and compare it to existing stocks to see where we stand coming into the winter.

An early warning system could give federal and state government more time to address some of the factors that they could only look back on and analyze retrospectively last year and to improve their preparedness -- knowing going into the winter that inventories would be precariously low if an early cold snap hit. The Energy Department, for example, could gather additional information on the secondary or tertiary inventories-- to better assess the risks of an early cold snap. The government could put procedures into place for streamlining Jones Act waivers, in case emergency shipments of product become necessary. States could gather more information on local inventories, buy additional fuel supplies earlier or enter the futures market to protect their energy assistance funds, or encourage consumers not go into the winter with low fuel tanks if overall inventories are low. (The EIA report, p. 23, specifically notes that residential users may have been relatively unprepared for last winter's cold spell, and this may have contributed to the problem.)

Dr. Merklein testified before a House Appropriations subcommittee in April that "Yes, in retrospect there was a shortage. There weren't sufficient inventories. Could anyone have guessed? Did the state officials guess? Did the corporations guess? Did the Federal Government guess in September that they would be inadequate? The answer is, reasonably, they did not." (House Approps. Hearing, Pt. 8, p. 50.) It is my belief that the federal government can and should do better. At the very least, we should know what inventories are reasonably necessary to avoid a crisis in the event of unusually cold weather, and know in a timely manner how our inventories stack up against that estimate.

Improved Data Collection. Another lesson from last winter is the importance of timely and accurate data on inventories and prices. Our legislation would require EIA to publish weekly prices and inventories of heating oil, propane and natural gas on a state-by-state, regional and national basis. Some of this data is already collected, but not on a comprehensive state-by-state basis. In order to collect data on a regional basis, however, as EIA does, there must be some foundation of information from the states.

In a letter to Representative Sharp evaluating our bill, Dr. Merklein expressed concern that some of these data collection requirements would be expensive to implement -- particularly state level data on price and inventories of heating oil and propane. This is important information to have, and it is my hope that, working with EIA, we can develop ways to limit the costs of gathering timely and accurate data. For example, Dr. Merklein correctly pointed out that there is no need for data from all 50 states, many of which don't rely on these heating fuels. Perhaps data on the price and inventory of a particular fuel, such as propane, could be collected only for those states in which that fuel accounts for a substantial portion of the state's heating fuel consumption. Other possibilities might include taking data from certain trade publications, gathering natural gas data biweekly rather than weekly, and using sampling techniques.

Study of Interruptible Natural Gas Contracts. Another contributing factor to last winter's crisis was interruptible natural gas contracts, which require large industrial users and electric utilities to switch from gas to alternate fuels when demand for gas is high. These contracts enable large users to obtain less expensive gas during the summer on the condition that their supply will be cut off in periods of peak demand in the winter. These contracts can benefit consumers by reducing prices, but when big utilities enter a tight heating oil market because they have been cut off, they can dramatically increase demand and drive escalating prices even higher. Many people believe this happened last winter.

EIA began examining this issue in its Final Report, but concluded that "[t]here currently exist insufficient data to estimate the proportion of this unanticipated demand attributable to interrupted natural gas . . . ." (EIA Report, p. 30.) The purpose of the study called for in our legislation is to fill in this missing information -- to understand the impact of these contracts on heating oil and propane markets and to assess whether, for example, requiring utilities to have greater storage capacity for alternate fuels would be helpful. I understand from Dr. Merklein's letter to Rep. Sharp that there is some concern about the cost of such a study, and I would be interested in exploring ways in which an effective study might be done without exorbitant cost.

Jones Act Waivers. Though not addressed in our legislation, I would urge the Committee to consider seriously the need to revise the requirements for granting waivers of the Jones Act--which prohibits foreign flag vessels from delivering cargoes from one U.S. port to another. Several requests for waivers to deliver heating fuels were denied or granted after some delay. A domestic energy crisis like last December's, with tight supply and spiraling prices, should be a justification for a waiver and for a streamlined procedure for granting a waiver.

Thank you, again, Mr. Chairman, for giving me the opportunity to testify today. I look forward to working with you and the Committee on this legislation.

Senator **Wirth**. Thank you very much, Senator Lieberman. Senator Levin.

STATEMENT OF HON. CARL LEVIN, U.S. SENATOR FROM MICHIGAN

Senator **Levin**. Thank you, Mr. Chairman, and thank you for holding this hearing. This bill is designed to minimize the possibility of a recurrence of the home heating fuel price catastrophe of last winter.

The bitter cold temperatures in the winter of 1989 resulted in a huge increase in the price of fuel. We think we know why. We think the supplies were low. We think there was gouging, but it was not an isolated instance, as the recent report of the Energy Information Administration suggests. It was a pervasive problem throughout my State of Michigan.

When fuel bills almost double per gallon price—we are not talking about, here, the use of fuel, we are talking about the price per gallon almost doubling—you have got a catastrophe on your hands. It put people, in many cases, in a situation where they could not eat because they had to pay for additional fuel at a huge increase in price.

So this demand is inelastic. It is not something which people can either do or not do. The Energy Information Administration's report that just came out suggested that the levels, the stock levels in November 1989, did not appear to have been particularly low, and this seems to contradict the statement which was made by Dr. Merklein, the EIA Administrator, to an Appropriations subcommittee over in the House a few months ago when he testified that the low inventory levels of home heating fuels were "a very significant factor contributing to the shortages in December of 1989."

This same report suggests that there may have been isolated cases in which margins and profits were unusually high and consumers paid very high prices. Well, in my State of Michigan they were not isolated, they were pervasive. The market did not function well in my State of Michigan. It functioned abominably. There were increases of almost 100 percent in a few months in the price per gallon of home heating fuel, and the sole purpose of this bill is to try to give us a better handle on supplies, on information.

This is not a bill which will require anybody to do anything different in terms of the inventory level that they must stock. This does not tell the wholesalers they must stock something. It is not an intervention in the market. It is an informational bill which will allow, and in fact require, the Energy Information Administration to recommend—and I emphasize to recommend—the level of home heating fuels which should be on hand at the beginning of the season in order to meet a predicted need.

So, Mr. Chairman, the bill is not a major intervention in the market. It would allow us to, we hope, reduce the chances of a recurrence of last winter's disaster. We believe it is a modest effort that the Government is required to do to help assure a decent supply of home heating fuel at a reasonable price.

Again, let me commend my colleague, Senator Lieberman, for his initiative here. I am proud to co-sponsor this bill. It is a modest effort. It is not an intervention in the market. It is informational, it is voluntary, it will help to avert a recurrence of what was a very nasty situation and a very mean situation and a very unfair situation in terms of people's ability to stay warm last winter in the Northern States.

Senator WIRTH. Thank you very much, Senator Levin.

Before going to Senator Bradley, I would like to note that in reviewing the testimony from EIA this morning, Dr. Merklein, in his testimony he submitted to us in advance, announced EIA's intent to collect and disseminate additional frequent information on heating oil and propane. In preparation for next winter the EIA will expand its current heating fuel monitoring capability and finally EIA will acknowledge the need for more detailed study of how interruptible gas contracts performed last winter.

I do not think you all have had a chance to see this yet. It is in his testimony today, and I would certainly appreciate any comment you may have. It seems to me that this is, if nothing else, a case study of how the legislative process works.

I mean, you push at one end and then things start to come out the other end, and that is what it is supposed to be, contrary to what we hear often from the White House, that we should not be doing anything up here. It seems to me you have probably stimulated a good deal of action down in the Department of Energy, and I congratulate you. Maybe we are headed in the right direction, and we look forward to any comments that either of you might have after you have had a chance to look at Dr. Merklein's testimony.

Senator Bradley.

STATEMENT OF HON. BILL BRADLEY, U.S. SENATOR FROM NEW JERSEY

Senator BRADLEY. Mr. Chairman, let me just thank the two witnesses.

We share that common experience last winter, when the fuel prices went up 20 percent one week, 50 percent the next week, to unbelievable levels, and it would have been a catastrophe if there had not been a godsend of a heat wave in the middle of the winter. It would have been a catastrophe.

I mean, we had thousands of people, as you know, in your State and in mine, low-income people who had no access to money to pay for the fuel. They were on the brink, and if the heat wave had not come they would have been in very difficult circumstances.

So I am very interested to hear what the witnesses have to say today. An idea that I have suggested from time to time is that a emergency fuel oil supply be maintained. It was not widely accepted originally, but it seems to me it is gathering more and more interest.

I would also note for the record that at a hearing in this committee several weeks ago on the Iroquois Pipeline, there is now going to be a 90-day delay in the decision, and we hope that that will not push us up against another problem next winter with inability to get any foreseeable distant support from gas from the North.

So, Mr. Chairman, I think that this is a very important hearing. It is one that is directed at what was an inexplicable circumstance last winter, and we hope that today we are going to get some answers to some of the questions that we were posed by our constituents last winter, and I might also note that one of the panels is a distinguished New Jersey company and utility, and we are looking forward particularly to hearing from PSE&G.

Senator LEVIN. Senator Bradley, if I could just comment, thank you for your comments, and also to the Chairman. We very much welcome Dr. Merklein's comments in his testimony, which you described, about greater monitoring. That is a help, but it really does not get to the heart of this bill, which is that the Energy Information Administration recommend an inventory level which will be adequate. And I do not want to characterize the whole bill by saying that is the heart of it, but that is a critical part of it which apparently is not covered in his testimony.

Again, it is not an intervention in the market. It is not a mandate. It is simply a recommendation of what an adequate level would be to prevent the recurrence of this unfairness of last winter, and so we hope that the Committee will continue that process which the Chairman so well described, of pushing on the legislative end so that at the other end we can get some response. And I would emphasize particularly that need that we have a recommendation for an adequate inventory level in advance from the Energy Information Administration.

Senator LIEBERMAN. I would just add—and again thank both of you, Mr. Chairman and Senator Bradley—that what Senator Levin says is right on target.

I had a brief conversation with Dr. Merklein, and I appreciate the steps forward. But when you think about the disastrous consequences that that increase had for people—and as you said, Senator Bradley, it could have been much worse if January had not been unseasonably warm—and what might come in the future, what we are proposing here is pretty modest and very restrained.

The future could see much more rigid and tough prescriptions offered, and so I think that the simple idea of having a recommended inventory level is an important one. Information is the beginning of solving this problem or at least creating preparedness. And again I thank you, Mr. Chairman and Senator Bradley, for your interest.

Senator WIRTH. Gentlemen, thank you very much. We greatly appreciate your being with us, and again congratulations on the introduction of the legislation and on the effects that it has had so far.

Senator BRADLEY. Mr. Chairman, I would like to note that once again there were a lot of people who were hard hit last winter, and it was interesting that the President's budget cut low-income energy assistance by 25 percent, and a lot of people in my State found that difficult to believe.

We managed to get $50 million more out of the supplemental, but the events of last winter only remind us about the importance of that program, generally. And I know the witnesses are not going to comment specifically on that program, but I also know that they appreciate as well as anyone else that if you are poor you are going to be harder hit by price increases than if you are not. And that is kind of a truism, but we sometimes forget it around here. It seems like the President did it in his budget.

Senator WIRTH. That underlines for me as well, Senator Bradley, the need for the country to be moving aggressively on an energy policy which is going to talk about conservation and talk about low-income energy assistance and talk about supply and talk about competition—all of those issues that are going to cause the Department of Energy to make some very tough decisions.

I hope that we get to the point that those are made. It is my understanding that a lot of that has now been deferred. Much ballyhooed, a national energy strategy has now been sort of put on the back burner and is floating around out there. I hope that is not the case, and I suspect we may hear some of that from our next two witnesses today.

Our next panel, if they may come and join us at the witness table, consists of the Honorable H.A. Merklein, the Administrator of the Energy Information Administration, Department of Energy, and the Honorable John J. Easton, the Assistant Secretary for International Affairs and Energy Emergency, also at the Department of Energy.

Both of them will be testifying on the administration's view of what happened during last winter's crisis and what steps DOE will undertake in the future to coordinate with other Federal agencies and the States to ensure emergency preparedness.

I look forward also to any comments you might like to make, Dr. Merklein, on the announcement of the Department of Energy today.

This will be followed by a panel of experts with differing views on the crisis. I will introduce that panel at that time.

Gentlemen, we hope that you will summarize your views. Your testimony is available and it will be included in full in the record, but I think it is most useful if we could have you summarize those views and we could move to questions rapidly and then move on to our panel.

As ever, time is a premium both for you and for other witnesses. We greatly appreciate your coming up and joining us.

Dr. Merklein, why don't you proceed?

STATEMENT OF DR. HELMUT A. MERKLEIN, ADMINISTRATOR, ENERGY INFORMATION ADMINISTRATION, DEPARTMENT OF ENERGY

Dr. MERKLEIN. Mr. Chairman, it is a pleasure to be here today. I have been quoted just a minute ago as testifying that inventories were low, and that was a correct quote. I was also quoted as testifying that inventories were adequate, and that was also a correct quote, so you are in a dilemma as to what you are going to believe.

The answer is that in retrospect the inventories clearly were not sufficient, but no one could anticipate that. We did not. The State Governments did not. I was a convergence of all kinds of unfortunate events. I will get into that in a little while.

I sense that the concern that Senator Lieberman had and that Senator Levin had and perhaps that you had deals essentially not so much with what happened, but with what are we going to do about it, if we cannot keep it from happening again, at least to spot it early and to respond to it.

So I will concentrate my thoughts in two areas: our data collection efforts before and after the great December crisis, and the study on interruptible gas contracts that has loomed large in the debate up to this point, that I recognize is important and that I would hope if done correctly will shed additional light on the situation as it was then giving us an opportunity to learn from that for the future.

EIA HEATING FUEL DATA COLLECTION

PAST—FUTURE

	Distillate		Propane	
	1989-90	1990-91	1989-90	1990-91
VOLUMES				
Production/Imports				
Monthly	X	X	X	X
Weekly	X	X	X	X[1]
Inventories				
Monthly	X	X	X	X
Semimonthly	X[2]	X[3]		X[3]
Weekly	X	X		X[1]
PRICES				
Wholesale				
Monthly	X	X	X	X
Semimonthly	X	X		X[3]
Daily[4]	X	X	X	X
Retail				
Monthly	X	X	X	X
Semimonthly	X[2]	X[3]		X[3]

1 Standby status. Pre-cleared with OMB.
2 13 participating States (October through March).
3 Up to 25 participating States (October through March).
4 Trade press data.

Dr. **Merklein**. On data collection you have on your right and on my left a chart which shows you two sets of columns, one labeled "Distillate" and one labeled "Propane." There was not any particular concern or complaint about our collection effort on distillate data. Essentially, our distillate data collection effort will remain the same with some small improvements.

One of those efforts is that the semi-monthly collection of inventory data and wholesale and retail price data by State. It will be expanded from the 13 States that participated at the time to 25 States for sure that we have today and maybe 27. We are still talking to two. All the States that we felt might be directly interested and have responded, and as I say, 25 of those will participate. So we have better coverage.

We also will have faster data transmission. We have now in place—had, as a matter of fact, last winter, but people were not too familiar with it—an electronic data transmission system which will be used so that the data will go back to the States almost instantly.

Now, to make a long story short on the propane side, we will essentially duplicate the collection effort that we had in distillate on the propane side. On our monthly collection there will be no change. From our semi-monthly collection we will put out what we call the "Winter Distillate Outlook" during the heating season, just like what used to be the heating oil report for distillate only, but it will include propane.

It will deal by State, twice a month, with primary inventories, wholesale-retail prices, and the data will be made available to the public and will be made available to the interested States by electronic transmission. That data collection, the propane, and semimonthly data collection, simply did not exist at the time.

We also have been in touch with the Office of Management and Budget (OMB) and have assurance that they will go along with us on clearance of a form for emergency situations that would revert from the semi-monthly data collection effort to a weekly data collection effort. We will also publish in one conveniently available, electronically available data source daily information on wholesale prices, spot prices.

Now, one of the problems that we have had in the propane collection last year was that we did not know the players, and so we were at the very bottom of a learning curve. We had to get to know the people. We did not have a relation of trust as we do with distillate dealers who are aware of the fact that company-specific information will not be published. Those propane players are now known to us so that we will have an immediate start-up. We will have the system in operation twice monthly and moving it up in emergencies to once a week.

You should also know that in terms of financing this particular endeavor the House of Representatives has increased our fiscal year 1991 budget by $550,000 for our internal collection expenses. The House has also earmarked $450,000 for State grants, with the stipulation that they should be on a 50-50 percent sharing basis.

The Senate has not yet taken up this issue, but if these monies are voted out of the Congress of the United States, we are prepared to move along in the direction that I have indicated.

So much about our data collection effort.

The propane effort will essentially duplicate our distillate effort, and not many people complain about a data gap on distillate.

Now, the second issue that is of considerable concern to this Committee and to the distinguished Senators who testified before me was this question of interruptible gas contracts. You probably know that the total increase in distillate demand was 708,000 barrels per day, but the unanticipated increase in demand was 362,000 barrels per day.

Of that 362,000, 211,000 was residential, and residents—homeowners—do not have interruptible contracts. We are not dealing with that. What we are dealing with is the volumes burned by utilities, by the commercial-institutional sector—universities, for example—and by industry. That was 141,000 barrels per day.

It was correctly noted that of that 141,000 barrels per day of additional, unexpected distillate demands, we at EIA do not know how much of that is weather-related, due to increased space heating demands, or associated with interruptible contracts. We only know that the remainder is 141,000 barrels per day.

In the absence of a database right now, that it is highly unlikely that there was zero increase in distillate consumption as a result of interruptible contracts, and I would likewise argue that it is highly unlikely that there was a zero increase associated with additional space heating demands.

I would argue that in the commercial-institutional sector the predominant force was additional space heating. In the utility sector the predominant force was probably interruptible contracts.

So you have two countervailing forces moving, trying to split up this total of 141,000, and I will for the sake of argument, lacking better information for the moment, ask your indulgence in permitting me to just say that perhaps half of it, perhaps a little more, was due to interruptible contracts: 70,000 barrels.

I want to point out to you that we are talking about distillate increases. That is not the totality of liquid fuels that was burned in addition to interruptible contracts. There is heavy fuel as well, and last December the total increase in fuel consumption was roughly 50-50 between heavy fuel and distillate.

In addition to that, I want to destroy a myth that some people hold, that there was actually less burning of gas because of the interruptible gas contract situation. Actually, this last December, as opposed to the December before last, there was nationally a 24 percent increase in total gas burned in electric utilities.

In the Middle and South Atlantic regions, the two regions most heavily affected by interruptible contracts, the increase in gas burning was 85 percent for the Middle Atlantic, and 49 percent for the South Atlantic.

Let me come back and summarize what I just said. 70,000 barrels per day, give or take 30,000, we assume were due to interruptible contract problems in all sectors: electric utility, industrial, institutional, commercial. I want to put this in perspective: 70,000 barrels interruptibles.

What else happened out there? There were notorious exclusions of imports just preceding the actual December cold snap. The capacity to import distillate in this country, is 500,000 barrels per day. We imported considerably less than that.

The lack of imports in this country, because of perverse pricing events that took place at that point in time with high spot prices in Europe, and the nonavailability of our import capacity was on the order of 200,000 to 400,000 barrels per day. That compares to your 70,000.

We also had refinery problems. In our Interim Report we put a number on this refinery problem: 20 percent of capacity in terms of distillate production lost that month. It was on the order of 300,000 barrels a day. Again, I put this in perspective relative to the gas contract or disruption of 70,000.

There were, in addition, transportation problems, and there was a Jones Act problem, an area in which I am not competent, but Assistant Secretary Easton will elaborate on it.

What I am telling you is this. You just cannot isolate one area and say, this is where your problem is. The market simply does not work that way. In volume terms, switching to distillate was not an important event. However, in price terms, because that switching and other events took place on the margin, the event was significant.

Now, I am very sympathetic with Senator Lieberman and Senator Levin. They have suggested a full-fledged study of interruptible contracts and we have priced that out, and it is somewhat expensive. We feel that covering all of the States and covering all sectors would cost on the order of $850,000.

We at EIA want to meet Mr. Lieberman more than half way, and I propose that we do this by having a more focused study, and by that I mean more focused regionally, and more focused in terms of actual unanticipated end use. I want to limit the geographical coverage of an interruptible to the Middle and South Atlantic States.

That is 56 percent of the increase in U.S. distillate, December 1988 to December 1989. That is where the action was.

I also want to focus on the electric utilities, because that is where most of the fuel switching, in my view, takes place.

What I am suggesting to you is that with that kind of a study we will get most of the answers that you are looking for. The study will be done much faster than otherwise it would be. A full-fledged study, covering the Nation, covering all sectors, will take 18 to 24 months. And if I know anything or have learned anything about the Congress of the United States, patience is something, in emergencies, that it does not have.

We can, by reducing the scope, come up with the answers much faster, and what is more, a reduced study can be accommodated within our existing budget. And you will be pleased to know that we are not going to come see you about $850,000 for that.

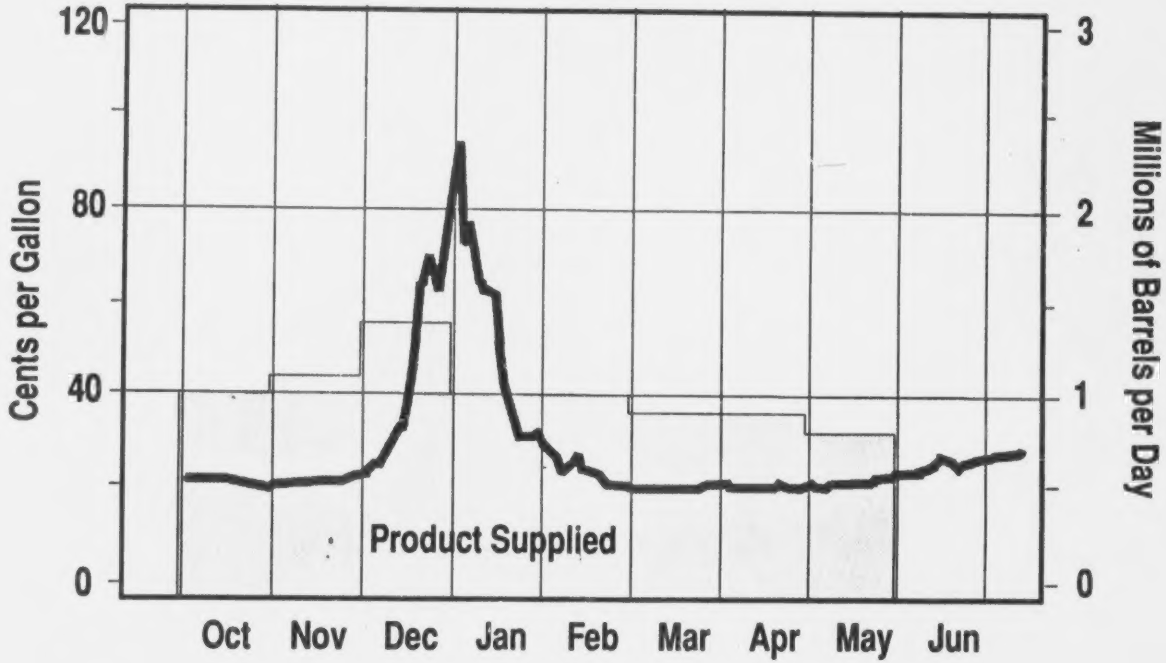
So much about interruptible contracts. We want to do it for you. Let us just limit the scope. Let us give you 75 percent of the answers for 25 percent of the money. We will have our staff meet with your staff if you agree and we will get started on it.

I want to say one last thing not mentioned in the written testimony. I understand the States have been somewhat unhappy because they had a perception that data we collected were not returned to them as fast as they would have liked. We have an electronic system in place. Clearly we have failed to educate them or acquaint them with the system we have. We have scheduled an

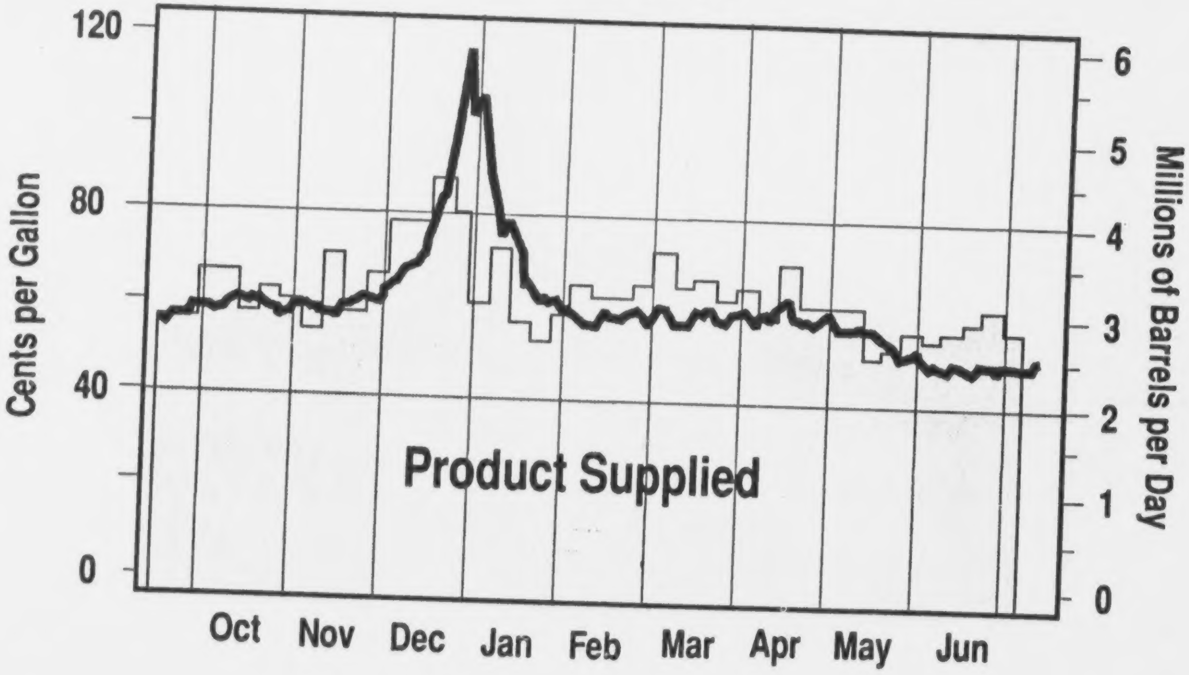
August 15 meeting that we will use among other things to bring State energy officials up to date on our electronic transmission system.

Finally, I have some graphs that show the spot price performance for propane and distillate. See for example, propane—the red line that you have—how quickly it went up, how quickly it went down.

Spot Propane Prices and Product Supplied
1989-90

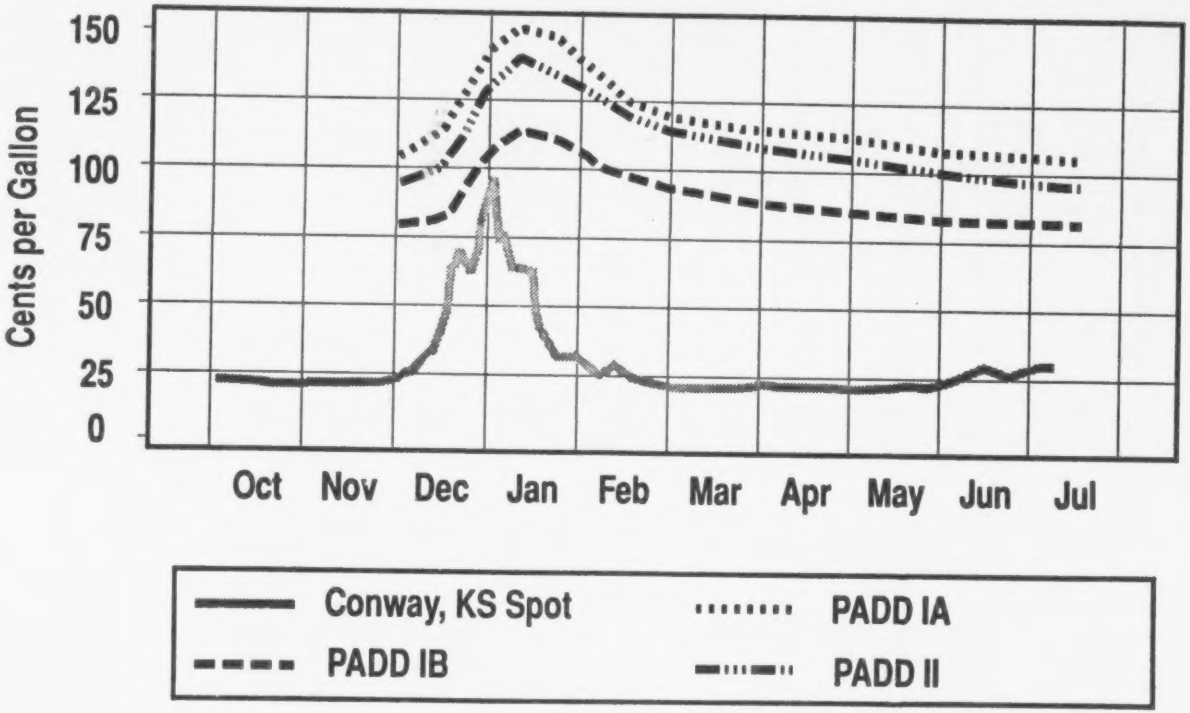


Spot No. 2 Fuel Oil Prices and Product Supplied 1989-90

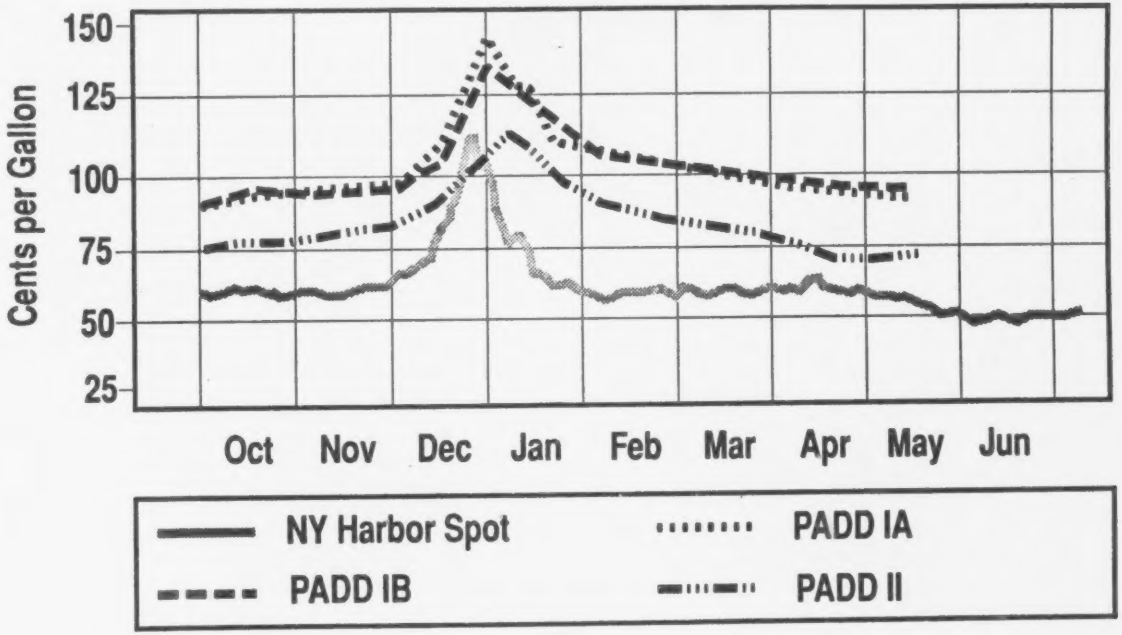


AE132182

Residential and Spot Propane Prices
1989-90



Residential and Spot No. 2 Fuel Oil Prices 1989-90



Dr. **Merklein**. This is the spot market. I am convinced if monopolistic price forces had been active and at work they would have prevented the quick decline in spot prices.

The solid yellow line is the increase in demand. Propane data collection, was monthly. We will have weekly data for the future.

The next graph shows spot markets for distillate, and there you see the sudden increase in demand. You see the solid black area and the way it has subsided following the heat wave, and the way, also, the price came down.

Similar behavior is shown, if I could have the other two graphs, on the propane and on the distillate prices comparing spot prices with retail prices for residential consumers.

The first one is for various Petroleum Administration for Defense Districts (PADD's). That covers New England and the Central and South Atlantic coast, relative to the spot market.

This is my reaction to what your concerns are, and, of course, I am available for questions that you might have.

[The prepared statement of Dr. Merklein follows:]

Statement of the

Administrator
Energy Information Administration
to the
Energy Regulation and Conservation Subcommittee of the
Senate Energy Committee
on
EIA's Role in Monitoring Heating Fuel Markets

July 26, 1990

Mr. Chairman and members of the Subcommittee, I am pleased to be here to share with you the conclusions of our analysis of the December 1989 heating fuel crisis. In addition, I plan to address the need for a more detailed study of how interruptible natural gas contracts performed during this past winter: the extent to which such interruptions were actually triggered and the impact this had on the price and supply of heating oil and propane. I also propose to bring you up to date about the steps we are taking to improve the information available on heating fuels this coming winter, and to inform you about the status of heating fuel supplies and prices as they now stand compared to the last two years.

Energy Information Administration's (EIA's) Conclusions

The severe cold weather in December and early January sharply increased heating fuel demand and prices. An interim report (A Short-Term Analysis of Heating Fuel Market Behavior) was submitted by EIA to Congress on January 31, 1990, based on data available at the time. In June, EIA issued a more detailed report, An Analysis of Heating Fuel Market Behavior in 1989-1990, which uses more complete data, including corporate profit data not available earlier. Both reports have been widely distributed to all interested parties including members of Congress, the U.S. Department of Justice, Federal Trade Commission officials, and State Attorneys General. We have received no adverse comments on either of the two reports.

The June report essentially confirms the findings of the short-term analysis. Major findings of the report are:

- The unanticipated cold snap, the worst in 60 years, resulted in an unprecedented surge in demand for space heating. This gave rise to a direct increase in residential heating fuel demand, and, indirectly, boosted the fuel demand of electric utilities.

- Refiners massively drew down inventories and boosted production to near-record levels until, in late December 1989, severe cold weather contributed to refinery outages and hampered distribution. Coupled with depressed imports, this forced spot markets to serve as the primary source of marginal supply, a role usually played by imports.

- Urgent and substantially increased demand in the face of slim spot supplies resulted in sharply rising prices.

This unique combination of supply and demand factors accounts for the price spike.

- On average, consumers in the Northeast saw more than a 50-percent increase in their heating oil bills for December 1989, compared to December 1988. Given the reduction in fuel consumption and the rapid decline of heating oil prices after the cold snap, the monthly heating bill per household, for October through February, averaged about $14 above year-earlier levels. Data that became available after publication of the June report show that, for the entire heating season, October through March, the average heating bill for Northeastern residential heating oil consumers was up by about $10 per month.

- Significantly higher propane and distillate prices did not translate into increased profits for U.S. refiners over the heating season. On balance, net income for integrated U.S. refiners and independents fell by over 60 percent and 51 percent, respectively, compared with the same period in 1988-89. The profitability of both groups remained below the U.S. industry average in the fourth Quarter of 1989 and the first Quarter of 1990.

Effect of Interruptible Gas Contracts on Heating Fuel Markets

In the final EIA report, there is an assessment of unanticipated demand for heating oil and the factors contributing to that increase. In December 1989, total U.S. demand for No. 2 distillate (heating oil and diesel) rose to 4.0 million barrels per day. There was an unanticipated surge of 362 thousand barrels per day in total retail sales (mostly in the Northeast), relative to 1988. Of that amount, 141 thousand barrels per day can be traced to major, non-residential, bulk end-user groups in the utility, commercial-institutional, and industrial sectors. The latter volume reflects both normal increases in non-residential fuel consumption as a consequence of unusual weather conditions and additional demands brought into play by gas contract interruptions. While our data base does not permit a precise quantitative definition of each of these two demand components, that amount (141 thousand barrels per day) defines the absolute upper limit attributable to those contracts. Since it is unlikely that the entire surge in unanticipated non-residential heating fuel consumption was due exclusively to the interruptible contract component, its quantitative impact on heating fuel demand could well have been considerably less.

Customers with interruptible gas contracts have always contributed to the overall demand for residual fuel, heating oil, and, to a much lesser extent, propane during the heating season. However, by purchasing natural gas during the remainder of the year, they reduce overall demand for these products, thereby keeping annual average prices lower for all classes of end-use customers.

Need for a Natural Gas Interruptible Study

To go beyond a definition of the upper limit of natural gas contract interruptions by defining their precise magnitude would be costly. As we noted in an earlier response of June 8, 1990, to Chairman Sharp of the House Subcommittee on Energy and Power (enclosed), such a study would cost about $850,000 and would take 18 to 24 months. Since information on interruptible service customers and curtailments on a monthly basis is not available at this time, such an undertaking would require us to design and implement an entirely new data collection survey.

Preparations for this Coming Winter

In preparation for the 1990-91 heating season, EIA is taking steps to expand its current heating fuel monitoring capability. The improved system will alert officials to developing problems in heating fuel markets and provide a timely measure of the degree and scope of any tightening markets. The program will also provide a communications network between industry, States, and Federal officials to facilitate an ongoing assessment of market conditions and to provide options for mitigating actions.

- The State Heating Oil Program (SHOP) is being upgraded and expanded to include propane. Based on our discussions with State energy officials, we believe that almost twice as many States may participate this year, supplying residential prices and inventory statistics on heating oil and propane twice monthly from October through March.

- EIA is in the process of obtaining OMB clearance for a data collection form which will enable us to accelerate the normal monthly collection of propane inventories during the months of September through March for PADDs I, II, and III: in the event of a disruption, tight markets, or sharply escalating prices, this clearance will authorize EIA to collect data on propane production, imports and inventories on a weekly basis.

EIA staff has attended numerous regional/State meetings to gain a full understanding of the problems faced last winter, to understand the requirements for information needed for informed decision making, and to create a dialogue between all levels of government and industry. EIA will continue to support the Assistant Secretary for International Affairs and Energy Emergencies, as it did in preparation for this summer's driving season. EIA will also participate in meetings with and provide briefings for petroleum industry representatives, all levels of government and others, on the current and anticipated state of heating fuel supplies and prices.

EIA is currently preparing an assessment of heating fuels for the coming winter. This assessment will be made available in October; it will be updated and widely distributed monthly to make timely information available for informed decision making.

As it did last winter, EIA will continue to collect detailed, weekly data on heating oil production, stocks, and imports, as well as data on refinery operations, to include a summary of problems facing the industry. These data will be published in the Weekly Petroleum Status Report (a widely distributed document) and made available electronically on EIA's computer the day before the printed document is available.

In addition, EIA will distribute the Winter Heating Fuel Report twice a month during the heating season, based on data collected in the SHOP program. This report will provide residential and wholesale prices and inventories of heating oil and propane by State for the Northeastern and Midwestern States heavily dependent on heating fuels. As in the past, this report (now expanded to include propane data) will be circulated on a timely basis to interested Senators, Congressmen, their staff, and others.

Assessment of Current Situation (July 1990)

- **Heating Oil**--At the end of June 1990, U.S. stocks of distillate fuel oil were about 111.8 million barrels, some 12 percent above last year, roughly the same as two years ago. Distillate fuel oil stocks on the East Coast--which consumes more distillate than any other area--were at about 41.6 million barrels, up 17 percent from last year, and 11 percent higher than at the end of June 1988.

  More than half of the difference in inventory holdings between 1989 and 1990 is attributable to higher production in 1990 than 1989. U.S. production of distillate fuel oil was up 7 percent in June 1990 compared to 1989. The rest of the difference is attributable to lower diesel consumption and higher imports. Demand was down 3 percent in June 1990 compared to last year; June 1990 imports were up 12 percent.

  Crude oil prices have been subject to significant fluctuations over the last few months. Nevertheless, on July 24, 1990, they were about the same as a year ago. Spot product prices were somewhat higher, however: $0.04 per gallon for No. 2 distillate and $0.07 for unleaded regular gasoline. Higher product prices are being maintained despite a slight decrease in consumer demand. One cause of the higher gasoline prices is the increased requirement for more expensive low Reid vapor pressure gasoline. Higher distillate prices reflect, in part, a surge in demand to build pre-season distillate stocks, which has resulted in a level 12 percent above last year's.

One interesting dissimilarity with last year can be seen in the futures markets, which are being used by sellers to lock in profits (by storing lower-cost current production and selling December NYMEX contracts) and by purchasers to minimize risks associated with price run-ups (by buying contracts for winter-time delivery). At this moment, the value of a December No. 2 heating oil contract compared to one for May or June is higher than it was in 1989. A variety of complicated transactions have increased NYMEX open interest (a good indicator of trading activity) for heating oil futures more than 2 times higher this year than previously.

- Propane--Propane stocks of 35.6 million barrels at the end of May 1990 were 8.3 million barrels lower than at the end of May 1989, representing a decrease of 19 percent. Production of propane in May 1990 of 848 thousand barrels per day was about 4 percent below the level a year earlier.

Demand for propane in May 1990 was 18 percent higher than in May 1989. The Gulf Coast, where propane is primarily used as a petrochemical feedstock, was the largest contributor to the increase in U.S. demand from year-earlier levels and it is also the region where propane stocks have declined the most. Increases in demand in the Midwest and the East Coast are attributed to retailers buying propane earlier this year to avoid the supply problems and price increases they experienced in December 1989. The strong petrochemical demand and the early build-up of secondary propane stocks caused primary stocks to remain lower in May 1990 than in May 1989.

In PADD II, the region most affected by propane shortages last winter, propane stocks in the primary supply system were 13.6 million barrels at the end of May. That is 0.5 million barrels below the level in May of 1989 and 2.2 million barrels less than two years ago. According to recent observations in the press, Midwest marketers in the secondary supply system have been rapidly building stocks over the last few months in order to avoid potential problems this winter.

Wholesale propane prices have edged upward. Terminal prices at Conway, Kansas, for example, were $0.27 per gallon on July 6, about $0.09 above 1989 levels. According to a special survey, residential propane prices in PADDs I, II, and III for mid-July have fallen substantially from early 1990 peaks. However, at $1.05 in New England and $0.81 in the Midwest, mid-summer prices are still slightly above prices prior to the fuel crisis in early December 1989.

o Natural gas--The natural gas industry quickly returned to normal following the December 1989 cold snap. Underground storage levels were back to normal by the end of February 1990 and are now approximately 5 percent higher than last year.

Both production and net imports of natural gas increased slightly in 1989 from 1988 levels, and are continuing to do so into 1990. Consumption, after rising from 1988 to 1989, is approximately 6 percent under 1989 levels due primarily to the very mild temperatures in January and February 1990. Natural gas prices are climbing gradually but are still well below 1985 prices.

Thank you, Mr. Chairman. I will be happy to answer your questions.

Bingham:
Heath

Department of Energy
Washington, DC 20585

JUN 8 1990

The Honorable Philip R. Sharp
Chairman, Subcommittee on Energy and Power
Committee on Energy and Commerce
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Thank you for your letter of March 16, 1990, requesting the Energy Information Administration's (EIA) comments on the collection of heating fuels statistics, particularly the proposals contained in [Senate Bill] S. 2177. This legislation would require the weekly collection of price and inventory statistics on natural gas, heating oil, and propane for all 50 States. While interest in such a measure is understandable following the effects of last December's extraordinary cold, the requirements of S. 2177 appear to be more intensive and costly than necessary to monitor adequately the heating fuels situation during the winter months. Furthermore, it has been our experience that weekly series are measurably less reliable (have larger estimation errors) than corresponding monthly data.

Heating Oil and Propane

The requirements that EIA collect and make available weekly price and primary inventory statistics on heating oil and propane would more than double the current data collection effort for inventory information and would require a major revision of our data processing system to produce State-level estimates. It would also necessitate the creation of a completely new system to process weekly State-level price data. This proposal would, we estimate, increase respondent burden by over 150,000 hours the first year and over 100,000 hours annually thereafter.

Estimated EIA Increased Costs: $2 million/First Year
$1 million/Annually

Natural Gas

Natural gas companies normally operate on a monthly cycle which is in concert with the Federal Energy Regulatory Commission and State public utility commission rules and regulations. An effort such as that envisioned by S. 2177 to report weekly would require the companies to restructure their record-keeping practices and/or to estimate weekly prices. Our experience has shown that such changes introduce additional error into weekly estimates that make them much less reliable than monthly figures.

Currently, wellhead prices are estimated monthly by EIA based on data from four States, Mississippi, New Mexico, Oklahoma, and Texas, representing over 50 percent of the total U.S. volume. Wellhead prices include both spot purchases and longer term contracts. Larger purchasing companies have numerous contracts with differing clauses and their ability to respond accurately on a weekly basis is questionable. A survey of major interstate pipeline companies would provide a wellhead price only for gas that they purchase. This would probably be misleading since they now own only about 30 percent of the gas they carry, the rest being gas transported for others.

An examination of recent price movements would indicate that the natural gas spot price is a fair representation of the current/short-term price. The natural gas spot market price is an average or median price based upon actual transactions with a specified delivery/receipt point (e.g., Henry Hub in Louisiana or Houston - Katy in Texas). The price is usually for a 30 day duration. Currently, approximately 60 percent of all flowing gas, nationally, is moving based upon spot market prices.

Average city gate price by State, currently collected by EIA monthly from approximately 400 respondents, represents the average price of natural gas by State at the point where the gas is transferred from a pipeline to a local distribution company within the State. This is a difficult number to develop from accounting records on a monthly basis, let alone weekly. Should this proposal become law, a sample of approximately 300 natural gas marketers would be required to be surveyed each week, and the weekly estimates would be much less reliable than current monthly figures.

Estimated EIA Increased Costs: $100,000/First Year
$50,000/Annually

Natural gas is currently stored in 395 active reservoirs in 26 States with a total storage capacity of 8.1 TCF. Pipelines are strategically located to take advantage of this storage capacity, and inventories are generally built up over the summer months in locations where winter demand might tax the transport capability of the pipeline. There are approximately 90 companies operating underground storage facilities which would have to provide data by reservoir each week to enable us to know which pipelines were accessible.

Estimated EIA Increased Costs: $75,000/First Year
$35,000/Annually

Interruptible Natural Gas Contract Study

The S. 2177 requirement to conduct a study of the effect of interruptible natural gas contracts on the demand and supply of No. 2 distillate and propane during the 1989-90 winter heating season would entail intensive data collection on such areas as alternate fuels capability, fuel switching, alternate fuels inventories, and estimates of "days supply" under normal and stress conditions. Given the scope of the study, it could not be done in six months time. An in-depth examination of potential data sources would be needed. Information on interruptible service customers and curtailments on a monthly basis is not available from existing data collections or public sources. Thus, we would be faced with starting a new survey with all of the attendant delays associated with originating surveys.

Estimated Cost: $850,000 (at least)

Current EIA Heating Fuel Data Collections

While EIA routinely collects extensive data on heating fuels on a monthly basis, a considerable amount of information is currently available on a more frequent basis:

Heating Oil

- EIA collects and reports weekly distillate, imports, stocks, and product-supplied by Petroleum Allocation for Defense District (PADD). These data are published in the Weekly Petroleum Status Report.
- EIA coordinates the collection of, and summarizes, the data obtained by States choosing to participate in the EIA/State Heating Oil Program. These data are published every two weeks during the heating season in the "Winter Distillate Report." The data consist of wholesale and retail residential heating oil prices and are provided by State and region in the publication. Four States also collect primary inventory information - New York, New Jersey, Delaware, and Connecticut.

Propane

Prior to the onset of the extremely cold weather in December 1989, EIA did not collect propane data more frequently than monthly. (New York was the only State to collect propane data.) Propane, as you are aware, is a very small portion of the national fuel supply and there had never been, prior to December, a question, issue, or crisis involving the availability of propane to heating fuels customers.

The EIA, in response to the problems associated with propane, initiated two special efforts on an emergency basis:

- A survey of a sample of refineries and fractionators that produce propane and companies that import or store propane was initiated weekly to obtain estimates of propane production, imports, and stocks for selected geographic areas. These data are now published in the Weekly Petroleum Status Report.
- An ad hoc survey of major retailers of propane for selected geographic areas (PADDs I-X, I-Y, and II) was coupled with available wholesale price data from the two major propane terminals (Mt. Belvieu, Texas and Conway, Kansas) to monitor price movements. These data were first made available for the week of December 1, 1989.

Although all of the costs are not yet in, EIA will have expended over 3 staff-years of time and approximately $350,000 in responding to the needs expressed by those who are involved in this issue, including the new propane data collections.

The benefits of S. 2177 certainly would be a wealth of information available on a weekly basis. However, since S. 2177 requires the collection of data for all 50 States, much of this information would be for States which are not heavily dependent on heating fuels. It is our belief that fewer than 25 States have an interest in such data. Since aberrations in the heating fuel market have been infrequent (e.g., the last heating oil crisis was in late 1983 and propane had not been a problem before this past winter), the routine collection of all of this information on a weekly basis does not appear to be a cost effective approach. We clearly recognize the need for timely data when a need arises and continually assess what combination of detail, frequency, accuracy, and expense is suitable. One approach might be augmenting the existing baseline data programs with a series of standby collections which have been precleared and could be rapidly implemented should the situation dictate. These standby collections could provide more detailed (i.e., State-level vs. PADD-level information) or more frequent (i.e., weekly vs. bi-weekly or monthly) information. These standby collections could be used effectively whenever changes in energy markets are large enough to be measurable against the backdrop of larger estimation errors that routinely occur in more detailed or more frequent breakouts.

I genuinely appreciate your interest in the EIA data collection program.

Sincerely,

H.A. Merklein

Dr. H. A. Merklein
Administrator
Energy Information Administration

cc:
The Honorable Carlos J. Moorhead
Ranking Minority Member

Senator **Wirth**. Dr. Merklein, we thank you very much, and I suspect this might be your last appearance before the Energy Committee. I see the gratitude on your face lighting up the whole room.

[Laughter.]

Senator **Wirth**. I, on behalf of the committee want to thank you very much for—what is it, 6 or 7 years?

Dr. **Merklein**. 5½ years, and I am going to miss the hearings, some more than others.

[Laughter.]

Senator **Wirth**. Well, we appreciate your good work and wish you well and thank you very much.

Mr. Easton.

STATEMENT OF JOHN J. EASTON, JR., ASSISTANT SECRETARY FOR INTERNATIONAL AFFAIRS AND ENERGY EMERGENCIES, DEPARTMENT OF ENERGY

Mr. **Easton**. Thank you, Mr. Chairman.

Senator **Wirth**. And this may be your first appearance before the committee.

Mr. **Easton**. I think other than perhaps my confirmation hearing it may be. I have testified in a number of other committees.

In your letter of invitation you asked us to address three items. Dr. Merklein has fairly well addressed a couple of them. And so let me just quickly touch on S. 2177, the Department's position on that bill. Secondly, I will discuss the actions that we have taken in the Office of Energy Emergencies to prepare for the future, what we have done since last December and January. And then I think your third request was interruptible contracts and I think Dr. Merklein has discussed that. So I will be rather brief in that area.

On S. 2177, in part for the reasons discussed by Dr. Merklein, the Department is opposed to the bill because of what we think are perhaps, requirements that go beyond what might be necessary. We think that some of the steps that Dr. Merklein has offered in terms of data collection may well satisfy the interests of the bill's sponsors. EIA has already indicated what it intends to do.

Also, on the issue of recommended minimum inventory levels, we think that that also is unwise because it is really such a complex issue that the best way to set those inventory levels, we feel, is through the market forces that can do a better job than any one of us individually.

There was a time in the past when the Department had a program to recommend minimum inventory levels and that was not a very successful experience.

Finally, the fifth section of the bill requires a study of the interruptible natural gas contracts. Dr. Merklein has just offered an approach to that.

Let me discuss a number of initiatives that we have undertaken since last winter in order to be better prepared for a winter heating fuel emergency.

First, to improve the administrative handling and the granting of Jones Act waivers, we held an interagency meeting right before the fuel crisis, and then a number of interagency meetings in the winter and spring.

Those interagency meetings have led to a memorandum of understanding which has just been concluded among the Maritime Administration, the Customs Commission and the Department of Energy. The three agencies have agreed with this memorandum of understanding to how we will handle Jones Act waivers, how we will better coordinate and be prepared to deal with those waivers. The new memorandum imposes certain responsibilities and obligations on each of us. It imposes time frames for each of the three agenies to quickly respond so that we are in a better position to handle Jones Act waiver requests that might come in during some future energy emergency.

Also, in addition to that MOU that has just been concluded, we have held a number of meetings on a regular basis with the States, with the industry and with other Federal agencies in order to improve the exchange of information among the various participants.

In effect what we are doing is institutionalizing the meeting we held in December on Christmas weekend, when we addressed the situation. At that time, we decided that the best way to be prepared for the future is to meet on a regular basis, among the States, the industry and the Federal agencies to anticipate—in the spring, the summer driving season and what the outlook is, and in the fall, to anticipate the winter heating season.

I am pleased to say that the fall meeting to be held this October, will be co-sponsored by the Petroleum Industry Research Foundation. And you will be hearing from Dr. Lichtblau fairly soon, in your next panel.

In addition to these two fall and spring sessions, we also hold a number of outreach meetings with the States. We held six during 1989. We have held four regional seminars during 1990. The purpose of these seminars is to improve the cooperation with State officials and improve energy emergency planning and energy emergency responses.

On another front, as part of the National Energy Strategy process, we will be conducting a workshop next month in order to receive comments from the public on the role of the State and Federal Governments, private industry and consumers, in being able to plan and respond to energy emergencies. We are planning to hold this about mid-August in order to receive comments which will then help us in the preparation of the National Energy Strategy, which will be submitted to the President this December.

Finally, you ask about interruptible contracts. I am not sure there is much I can add to Dr. Merklein's testimony. You heard his testimony that it looked like 141,000 barrels a day might have been due to interruptibles. And then that was probably split between the various end users, electric utilities, industrial and commercial customers.

So, in conclusion, let me say we have taken a number of steps and will continue to work with the States, with industry and other Federal agencies to be better prepared in the future.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Easton follows:]

STATEMENT OF

JOHN J. EASTON
ASSISTANT SECRETARY FOR
INTERNATIONAL AFFAIRS AND ENERGY EMERGENCIES

U.S. DEPARTMENT OF ENERGY

BEFORE THE
SUBCOMMITTEE ON ENERGY REGULATION AND CONSERVATION
OF THE
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

JULY 26, 1990

Mr. Chairman and Members of the Subcommittee, I am pleased to be here today to present testimony on S. 2177, and respond to other concerns of the Subcommittee.

December of 1989 was the coldest December in at least 60 years. The early winter cold wave placed tremendous demands on heating fuel supplies that were met by the market. Because of the strain on the heating fuel distribution system, prices rose quickly. An unusually warm January, coupled with the restocking of supplies from foreign and domestic sources, returned prices to more normal winter levels. The Department of Energy (DOE) testified last winter before the Senate Committee on Governmental Affairs about the causes of the rapid price increases. The Energy Information Administration (EIA) prepared two reports on this issue that have been widely distributed and EIA's testimony provides the results of their analysis.

You have asked us to comment on S. 2177, which, among other things, requires substantial additional data collection activities regarding heating fuels and natural gas. Since S. 2177 requires the collection of data for all 50 States on a weekly basis, much of this information would be for States which are not heavily dependent on heating fuels or natural gas. Since aberrations in the heating fuel market have been infrequent and the market has efficiently met demand, this substantial increase in data reporting is not warranted or justified (e.g., the last heating oil supply dislocation was in late 1983 and propane had not been a concern before this past winter). The routine collection of all of this information on a weekly basis is not needed, and would be costly to industry and government. We clearly recognize there is some need for timely data when a need arises, and we continually assess what combination of detail, frequency, accuracy, and expense is suitable.

We have taken steps necessary to augment the existing baseline data programs with a series of standby collections which will have been pre-cleared and could be rapidly implemented should the situation dictate. These standby collections could provide more detailed (e.g., State-level vs. PADD-level information) or more frequent (e.g., weekly vs. bi-weekly or monthly) information if the situation warrants it. These surveys in the more extreme, very infrequent tight market situations, could provide useful statistics that would be both timely and accurate. Therefore, we are opposed to Section 2 of S. 2177. We have the authority to implement the flexible approach that I have proposed.

The Department strongly opposes those provisions in Sections 3 and 4 of S. 2177 which require the Secretary to establish recommended primary inventory levels for heating fuels and notify Congress and the states when inventories fall below levels considered "adequate". A determination of the adequacy of inventories can realistically be done only after the fact. A review of the days of supply of distillate during the 1980s shows a general downward trend. (Days of supply is calculated by dividing inventories by consumption; it measures, on a relative basis, the ability of inventories to meet demand.) EIA's Service Report confirms that inventories of No. 2 distillate (i.e., heating oil and diesel fuel) seemed adequate as late as Thanksgiving of last year, when compared to previous years' stocks at the same point in time. Under the provisions of the proposed legislation, the Department would have concluded that inventories were adequate at the beginning of last winter, given the long-range weather forecast and falling supply/demand trends. Even had the winter been colder than normal, distillate stocks probably would have been adequate, if the sharp increase in demand had been spread out over a longer period of time. The tremendous concentration of demand during the month of December, which was the principal reason for the price spike, could not have been foreseen by the Government or industry. In any case, demand was met by the market through stocks, increased production of distillate, transshipment of LPG from other regions, imports and end-use fuel switching. All these sources and alternatives are market responses; DOE could not begin to estimate these market solutions to a tight supply situation. Therefore, it is not technically feasible to estimate a recommended or minimum stock level.

Our final comment on the proposed legislation pertains to Section 5, which requires a study of the effect of interruptible natural gas contracts on the demand for No. 2 distillate and propane during the 1989-90 winter heating season. This provision addresses the issue of whether there were large numbers of interruptible gas customers who were cut off from natural gas supplies and therefore were driven to consume distillate fuel oil or propane, thereby exacerbating the already difficult demand situation caused by the December cold snap.

Based on available information, the Department does not believe that interruptible natural gas contracts were a significant factor in the increase in demand for No. 2 distillate and propane experienced in December. EIA's analysis suggests that, out of a total U.S. market demand of 4 million barrels per day of No. 2 distillate in December, 1989, "the impact of interruptible gas contracts on the December 1989 heating oil market was, at most, 141 thousand barrels a day, but probably less, based on the total unanticipated demand for the electric utility, commercial/institutional, and industrial sectors."

Several other factors need to be considered to give perspective to the issue of the impact of interruptible contracts. Fewer interruptible customers are on the gas system in December compared to summer months. Many customers switch to residual fuel oil, not distillate or propane. Some customers changed from interruptible status to firm contracts. Customers with interruptible gas contracts have always contributed to the overall demand for residual fuel, heating oil, and, to a much lesser extent, propane during the heating season. However, by purchasing natural gas during the remainder of the year, they reduce overall demand for these products, thereby keeping annual average prices lower for all classes of end-use customers.

The Department has concluded that, subject to the availability of funds provided by the Congress, it would be worthwhile to obtain additional data to produce more conclusive information on this issue. Undertaking a study of this issue, however, will take longer than the six months contemplated in S. 2177. EIA estimates that such a detailed study would take eighteen months to two years.

In addition to the study of interruptible natural gas contracts, there are two other ongoing efforts that bear on the question of the ability of the natural gas industry to respond to extraordinary demands. First, DOE and FERC are jointly analyzing natural gas wellhead deliverability and expect to issue a study in the fall. This study will analyze current production data and estimate wellhead capacity over a three-year period at several price levels. FERC is currently analyzing natural gas interstate pipeline capacity and has recently announced that they will use Oklahoma data to test how well the wellhead data integrates with data on pipeline capacity. Secondly, FERC has initiated a data request to interstate pipelines relating to how pipelines responded to the cold snap of December 1989. This data will be useful in analyzing the impact of unexpectedly cold weather on firm customers.

Your letter of invitation asked us to discuss actions taken by the Department to mitigate future fuel emergencies. The Department has begun to hold meetings on a regular basis to exchange information with States, industry and others before the winter heating season and the summer cooling/driving season. Such a meeting was called on an emergency basis last December. We had a fuel assessment conference in April of this year, with another one scheduled in the latter part of 1990. The meetings have proven informative to all the participants by giving them the opportunity to synthesize information obtained from many perspectives.

The Office of Energy Emergencies has just concluded a series of regional state seminars this summer, oriented toward improving Federal/State cooperation in energy emergency preparedness planning. Earlier this year, a seminar sponsored in New Hampshire included a highly effective and very well-received simulation using as its scenario the situation experienced this past winter during the cold wave.

The Department also intends to review many of these heating fuel issues in the National Energy Strategy development process. We are planning a workshop to receive public comments on the role of the Federal and State Governments, private industry, and consumers, in preparing for or responding to disruptions in heating fuel markets.

Another initiative the Department has undertaken to ensure a prompt response to any future energy supply shortage is enhancement of the Jones Act waiver process. Immediately following the resolution of last winter's heating fuel supply problems, the Department of Energy sponsored an interagency meeting aimed at improving the administrative process among the agencies involved in the processing of Jones Act waiver requests. The participating agencies included: U.S. Customs, Maritime Administration, Department of Defense, Department of State and Department of Energy. Negotiation of an inter-agency Memorandum of Understanding (MOU) was initiated. The purpose of the MOU is to expedite the case-by-case review of Jones Act waiver requests in an actual or imminent energy supply emergency. It is not intended to replace or supersede the separate MOU developed for use with respect to Jones Act waivers requested during a Strategic Petroleum Reserve drawdown. The MOU will expedite the administrative process for waivers, but does not bear on the substantive decision made by the Treasury Department which has final decision authority over all Jones Act waivers.

The Department has been asked whether a regional petroleum product reserve would have mitigated price increases last winter. The costs and benefits of such reserves depend on many variables, including the frequency of the need to draw upon the reserves. Prior analysis completed on this subject concluded that regional reserves are not needed nor would they be cost beneficial to the nation, and would be counterproductive, producing the opposite effects from those intended.

Furthermore, the Department made commitments to Senator Bradley and other members of the Congress that it would conduct a study of the costs and benefits of establishing a Regional Petroleum Reserve (RPR). A working group consisting of representatives from the Department of Energy and other Government agencies has begun the study. The study will include a cost/benefit analysis as well as an examination of other RPR-related issues. It is anticipated that the study will be completed later this year in accordance with the schedule for the National Energy Strategy.

The Department continues to believe that government intervention in the oil market would exacerbate fuel problems, and would be very costly to all U.S. citizens. The market performed very well this past winter, considering it was the coldest December in 60 years. An occasional aberration in weather patterns should not suffice to shift the responsibility of providing adequate supplies of heating fuels from private industry to the Government, particularly in view of how well the market performed.

I want to address my concluding comments to a concern that Admiral Watkins has raised in Congressional testimony this year, and which has been discussed in hearings on the development of a National Energy Strategy. The issue is that of import-dependent regions of this country improving their access to secure forms and sources of energy. The Department is well aware of environmental considerations which have made regions of this country reluctant to locate energy producing facilities in their areas. However, any one region's refusal to host its share of energy-producing facilities is unfair to the other regions of the country which wind up having them shoulder a greater responsibility. Some areas refuse to accept gas pipelines running under their land. Still others refuse to allow coal or nuclear generating plants in their neighborhoods. Some will not accept new or expanded hydropower facilities or even relicensing of existing facilities.

However, everyone wants an abundance of inexpensive energy for economic growth, prosperity, and personal comfort. People want cheap gasoline for their multi-car families. People want cheap electricity for their homes -- for air conditioning, for VCRs and PCs, and for the myriad appliances and gadgets we consider "essential" for modern life. And we want "somebody else" to carry the environmental burdens, like burying our trash and providing sites for the energy production facilities we need to maintain our comfortable lifestyles. There are many examples of a state's or region's refusal to reduce its vulnerability to energy supply disruptions because it would rather import either domestic or foreign energy supplies. It is incumbent upon all regions of the country to find a balance between energy and environmental interests for the economic welfare as well as the health and safety of our citizens. The reluctance to site energy projects in one's state or region is not without cost or consequences to the region or Nation as a whole. The Department of Energy stands ready to help any state or region understand the effects of local decisions on the supply, price, and reliability of energy for consumers.

Thank you, Mr. Chairman. I will be happy to answer your questions.

Senator **Wirth**. Good, thank you very much, Mr. Easton.

First of all, Dr. Merklein, could you submit the agreement for the record?

Dr. **Merklein**. I am sorry, I did not quite hear what you said.

Senator **Wirth**. I guess that is your responsibility.

Mr. **Easton**. I would be happy to, Senator.

[The agreement follows:]

AGREEMENT AMONG THE U.S. CUSTOMS SERVICE OF THE DEPARTMENT OF THE TREASURY, THE MARITIME ADMINISTRATION OF THE DEPARTMENT OF TRANSPORTATION AND THE DEPARTMENT OF ENERGY TO EXPEDITE REQUESTS FOR WAIVERS OF THE JONES ACT DURING PERIODS OF ACTUAL OR IMMINENT SHORTAGES OF ENERGY

I. PURPOSE

This Agreement is intended to facilitate consideration by the U.S. Customs Service (Customs), the Maritime Administration (MARAD), and the Department of Energy (DOE) (the "Parties") of case-by-case waivers of the Jones Act during a period of actual or imminent shortage of energy supplies, when such waivers may be necessary to help mitigate the shortage and are deemed necessary in the interest of the national defense.

II. AUTHORITIES

A. Section 27 of the Merchant Marine Act of 1920 (the Jones Act) (46 App. U.S.C. 883) provides that only vessels built in, documented under the laws of, and owned by citizens of the United States may carry merchandise between ports of the United States. The Secretary of the Treasury, through Customs, administers the Jones Act.

B. The Act of December 27, 1950 (note prec. 46 App. U.S.C. 1) authorizes the Secretary of the Treasury to waive the Jones Act: (1) upon the request of the Secretary of Defense to the extent deemed necessary in the interest of the national defense by the Secretary of Defense, and (2) either upon his own initiative or upon the written recommendation of the head of any other Government agency, whenever the Secretary of the Treasury deems such action is necessary in the interest of national defense. Customs advises the Assistant Secretary of the Treasury for Enforcement on waiver requests.

III. DEFINITIONS

A. "Coastwise-qualified vessel" means a U.S.-flag vessel having a certificate of documentation endorsed with a coastwise endorsement under 46 U.S.C. 12106.

B. "Energy supplies" means Nos. 2, 4, 5 and 6 fuel oils, kerosene, liquefied natural gas, and liquefied petroleum gases.

C. "Vessel" includes both tankships and oceangoing tank-barges.

IV. RESPONSIBILITIES

A. DOE shall:

1. Monitor energy supply needs in order to ascertain at the earliest time whether an energy supply shortage actually exists or is imminent.

2. Encourage State and local governments to coordinate with commercial suppliers in monitoring energy supply needs and in identifying sources of supplemental energy supplies.

3. Determine that there is an actual or imminent energy supply shortage and immediately in writing so advise the Parties and other affected governmental entities.

4. When making a determination, immediately in writing, provide Customs and MARAD the following information:

    a. the regions or geographic areas involved;

    b. the regions or geographic areas that can supply the needed energy supplies;

    c. the types of energy supplies needed;

    d. the projected size of the shortfall, the anticipated duration of the shortage, and the time period during which the delivery of energy supplies is necessary to alleviate the actual or imminent shortage.

5. Within 48 hours of a request for comments from Customs, and sooner if possible, provide Customs with a recommendation on a Jones Act waiver request. The recommendation shall contain an assessment of whether a waiver is necessary in the interest of the national defense.

6. If recommending that a waiver be issued, provide Customs and MARAD with updated information concerning the actual or imminent energy shortage.

B. MARAD shall:

1. Monitor the operating status of U.S.-flag vessels so as to be prepared to advise on their availability when an actual or imminent energy supply shortage exists.

2. Within 48 hours of a determination made by DOE under paragraph IV.A.3, and sooner if possible, advise DOE and Customs of suitable vessels that would be available to transport the needed energy supplies during the delivery period determined by DOE under paragraph IV.A.4.d. The order of preference for vessel utilization shall be: (1) coastwise-qualified vessels; (2) all other U.S.- flag vessels; and (3) foreign-flag vessels.

3. Within 48 hours of a request from Customs, and sooner if possible, provide Customs with a recommendation on a Jones Act waiver request, taking into consideration the availability of suitable coastwise-qualified vessels. In formulating a recommendation, MARAD will, by the most expeditious means, consult with owners/operators of coastwise-qualified and, if necessary, other U.S.-flag vessels. Waiver applicants will be provided with information on the availability of any U.S.-flag vessels.

C. Customs shall:

1. Immediately upon receipt of a Jones Act waiver request, telefax to DOE and MARAD a copy of the request with all pertinent information, and solicit comments from DOE and MARAD thereon.

2. Consider the advice of DOE and MARAD, together with comments of other Executive Branch departments and agencies, in making a determination on whether to grant the Jones Act waiver.

3. Within one working day after receipt of comments from the other Parties, and sooner if possible, make a determination on the waiver request and submit its recommendation to the decisional authority within the Department of the Treasury, which shall make a decision on the waiver request as expeditiously as possible.

4. Provide DOE and MARAD with a copy of the Jones Act waiver determination.

V. ADMINISTRATIVE PROCEDURES

A. Each Party, and the Department of Defense, shall be made a concurrent recipient of all written communications between the other Parties and between any Party and a waiver applicant. Communications between Parties and an applicant, or between Parties and other entities, may be made by commercial electronic communications (telephone, facsimile, and computer data link). Major and final decisions, including denial or approval of waivers, or recommendations for these actions, shall be verified by mail.

B. Each Party shall designate a program coordinator and an alternate and advise the other Parties of the designations. Program coordinators shall be the initial points of contact for all interagency communications under this Agreement. Each Party shall provide 24-hour communications arrangements to ensure communications capability during non-business hours.

C. Each Party may request an amendment to this Agreement. The Parties will negotiate proposed amendments. Amendments that are agreed upon shall become effective on a date agreed upon by the Parties.

D. This Agreement may be terminated by written notice provided by a Party to the other Parties.

E. This Agreement does not alter or supersede responsibilities and commitments of the Parties set forth in the "Agreement Among the U.S. Customs Service of the Department of the Treasury, the Maritime Administration of the Department of Transportation, and the Department of Energy Concerning the Drawdown of the Strategic Petroleum Reserve."

F. This Agreement is effective when signed by the representatives of Parties indicated below.

Carol Hallett
Commissioner of Customs
U.S. Customs Service
Department of the Treasury
Date: July 26, 1990

Maritime Administrator
Maritime Administration
Department of Transportation
Date: 25-July, 1990

Easton, Jr.
Assistant Secretary of Energy
for International Affairs
and Energy Emergencies
U.S. Department of Energy
Date: July 24, 1990

Senator WIRTH. Second, Dr. Merklein, the legislation says that there should be recommended adequate inventory levels established under section A. How does one go about defining what adequate levels ought to be?

Dr. MERKLEIN. I have to tell you that the definition of what is and is not adequate is essentially a political issue. We will be measuring inventories for you in some more detail in areas where we did not have it before, propane in particular.

We will certainly have available for you use rates. We have, as a matter of fact, a model that we can use to come up with a way of explaining unanticipated surges in distillate use beyond just what was dictated by the weather.

But to say that the inventory levels should be this much or that much is essentially a normative statement, and we must stay out of this arena as a statistical agency.

Senator WIRTH. How much can you get into also saying that the temperature is going to be such and such and it is going to last for a certain period of time?

Dr. MERKLEIN. We cannot.

Senator WIRTH. I thought you might have some kind of information that we do not have as to what is going to transpire on those.

Dr. MERKLEIN. We cannot. You might remember that even NOAA got surprised by that.

Senator WIRTH. Neither NOAA nor Sununu can predict those particular levels.

[Laughter.]

Dr. MERKLEIN. I do not know what Mr. Sununu can or cannot predict, but I can tell you that NOAA, this time last November, was not predicting too well.

Let me say something else, though, because I think it was Senator Lieberman—it could have been Senator Levin—that brought this up. Some passage along the line, if that fall in temperature had not come we would have been in dire distress. Well, I am not at all sure that it would have.

We had this enormous import capability that was inactive because of perverse price signals. But those price signals, when you look at those peaks, straightened themselves out. And as a result distillate was coming in massively in February, and would have come no matter what. So I am not at all sure once the economic forces had been put in motion, that the disaster would have continued the way it is depicted.

Senator WIRTH. Well, one of the items also on this front goes to the speed with which the waivers were granted. Is that not right? Was that not one of the problems that—you were not here at that time, Mr. Easton, but it is my understanding that there was a request for waivers. You will agree that those waivers ought to be granted, but that process of granting them was very, very slow and cumbersome. And maybe that falls into the emergency response that comes under your bailiwick.

Mr. EASTON. That is correct, Mr. Chairman. Actually, I had been confirmed and was in place at that time, and we had received at the Department of Energy about eight or nine different applications. I think some were duplicates, so there may have been six shipments or cargos for which waivers were requested. Two were granted; four were denied. Of the two granted, they concerned propane. One was granted too late. The cargo had already left.

What we found is that different Federal agencies viewed the statute differently and we felt that the availability of a U.S. vessel to us at DOE might be viewed differently from the way MARAD did. That situation led to the discussion that ultimately resulted in this memorandum of understanding.

Now we have a better process for determining which ships are available. We would set some time constraints on ourselves to try to avoid this problem in the future.

Senator **Wirth**. Let me ask you a final question, if I might.

The publication Inside Energy reported in March that the Department deleted seven so-called action items that addressed energy problem areas in the interim National Energy Strategy report. These deletions, according to Inside Energy, included a need to expand the Department's comprehensive database on energy resources to include energy end use and renewable technology.

Now, if that is the case, the implication is that the current database on energy use and the role that renewables can play in a National Energy Strategy is inadequate or nonexistent.

I do not know if you would like to comment on that, Dr. Merklein, if the Inside Energy report was accurate. And if so, does that suggest the conclusions that I have just stated?

Dr. **Merklein**. I am not familiar with the Inside Energy report. That one I have not read.

But I could give you, as a general feeling, the assurance that if anything, there will be a substantial increase at EIA in two directions. One of them is data gathering, and in particular in the area of consumption, but also in renewables.

And the other area that will be covered will be more detailed modeling.

Senator **Wirth**. It seems to me that what the suggestion was coming out of the hearings was a clear consensus that database and modeling and so on ought to be increased. That was deleted. It said, the energy daily, from the list of action items that might be taken on, you are going to do it anyway.

Everybody recognizes, then, that the database was not adequate and there ought to be greater modeling. And that is where we are headed.

Dr. **Merklein**. Yes, I think Assistant Secretary Easton also has something to say on that.

Senator **Wirth**. Excuse me, your announcement today would suggest that that is true, too.

Dr. **Merklein**. Yes, the general thrust is for EIA to collect more, not fewer data.

Senator **Wirth**. How long are you going to be before you take off, Dr. Merklein?

Dr. **Merklein**. Well, that depends on how fast your colleagues vote on my successor. He has been voted out of Committee, I believe.

Senator **Wirth**. Let me ask if we might do this. It seems to me with your announcement of today, it might be useful before you go if we could do that. And maybe to ask the staffs of Senator Lieberman and Senator Levin and the subcommittee staff to sit down with you and your people to see where their intent with the legislation meets what you have done, and where it does not meet.

And maybe we can work a lot of this out. It seems to me that maybe we can get a lot of that done. You are very familiar with all of this. Rather than waiting for somebody new to come on, maybe we could expedite that. Would that be a——

Dr. MERKLEIN. I am available, there is no question about it. It is not that the institutional knowledge departs with my person. My deputy has been with me since I have been there, and the division directors and office directors have been there. But certainly I will make myself available. That goes without saying.

Senator WIRTH. I mean, I could always put a hold on the new nominee until this meeting occurs.

[Laughter.]

Senator WIRTH. That seems to be what Senators do around here. Your gratitude of being in your last hearing is now diminishing.

Dr. MERKLEIN. I will make myself speedily available.

Senator WIRTH. I am not suggesting you would not do it. I know you would. But it seems to me that might be a productive thing to do, to see if the bases that they had been most concerned about in their particular areas, and as the authors of the bill, were covered. And we might make even a little more progress.

Dr. MERKLEIN. Now, the Lieberman bill, S. 2177, does not deal with some of the areas that we are dealing with, modeling and all of that.

Senator WIRTH. I understand, but we can get to some of the concerns there. I know that reaching—having on hand the requirement that certain supplies be on hand, Mr. Easton, is not something that you all support. But it looks to me like just about everything else that is in the legislation is covered by the intent of what you have described this morning, or this afternoon, and what you describe in your testimony.

Dr. MERKLEIN. Well, we are not going as far—we are going a long way towards——

Senator WIRTH. Well, I appreciate that, and I think it is a step in the right direction.

Anything else either of you would like to add for the good of the order?

Dr. MERKLEIN. No, sir.

Senator WIRTH. Do you have any comments on the database? Yes, I think you were about to comment there when I interrupted and asked if we could get Dr. Merklein's good counsel before he leaves.

Mr. EASTON. I am sure he would like to cooperate as rapidly as possible.

Senator WIRTH. Well, Mr. Easton, thank you and welcome. And Dr. Merklein, thank you again. We appreciate your being here and we will try to get everybody together before you head down the road.

Thank you again for your help, gentlemen, and we appreciate your coming this afternoon.

[Subsequent to the hearing the following material was submitted for the record:]

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United States Senate
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, DC 20510-6150

September 18, 1990

The Honorable Calvin Kent
Administrator
Energy Information Administration
Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Mr. Kent:

In response to last winter's heating fuel problems, the hearing held on July 26th concerning S. 2177, and in accordance with discussions between Energy Information Administration (EIA) staff, the National Association of State Energy Officials (NASEO) and staff from the Energy and Natural Resources Committee and the offices of Senators Levin and Lieberman, the Subcommittee on Energy Regulation and Conservation requests that you confirm that the EIA will undertake the activities indicated below.

Pre-Season Analysis

The EIA has the capability to examine the relative condition of distillate and propane stocks under assumptions of normal or 10% colder than normal weather. The Subcommittee requests that EIA conduct such an analysis, and issue a pre-season status report. This report would provide information to the public and decisionmakers to allow them to make informed decisions concerning product stocks and prices.

Distillate Inventories

EIA will collect and publish, on a weekly basis during the period October 1, through March 31, distillate stocks (inventories), at the primary level by Petroleum Allocation for Defense District (PADD), and for Sub-PADD levels for PADD 1. PADDs should be defined as they are in the EIA's Petroleum Supply Monthly, Appendix A. The Sub-PADD levels should also be defined as they are in the Petroleum Supply Monthly, as follows:

PADD 1X - (New England)	Maine, New Hampshire, Vermont Massachusetts, Connecticut and Rhode Island
PADD 1Y - (Mid Atlantic)	New York, New Jersey, Pennsylvania, Delaware, Maryland and District of Columbia

PADD 1Z - West Virginia, Virginia, North Carolina, South Carolina, Georgia and Florida

Inventory information will be provided in a form similar to that in Table 5 of the Weekly Petroleum Status Report (WPSR), and published in the WPSR. A graph similar to the upper graph of Figure 4 of the WPSR, including the "Average Range" band, and a line indicating minimum observed level will be provided at PADD level. This information should also be made available within one week of the collection of the information on electronic media available to the Congress and the states, including at a minimum, EPUB and Dialcom. No "recommended" or "acceptable" assessment or indication will be made.

In addition, information from individual states who choose to collect stocks information within their states as a part of the Federal - State Heating Oil and Propane Program (SHOPP), will be published in the semi-monthly Winter Heating Fuels Report. This information should be published for all states collecting in accordance with EIA requirements, whether or not federal funding is provided by appropriation.

Propane

EIA will expedite collection of monthly propane inventory data, currently collected as a part of the Petroleum Supply Monthly system, such that propane inventory information will be available approximately 10 days following the end of each month. These data should be made available on a PADD and Sub-PADD basis on electronic media. An "Average Range" band should be developed and inventories plotted on a graph similar to distillate at a PADD level, as described above.

The Subcommittee understands the EIA has prepared, and has obtained OMB clearance for standby collection of weekly production, imports and stocks of propane. This vehicle, we understand, will be implemented if, in the opinion of the Administrator, the collection of such data is justified. When implemented, inventory estimates will be published at a Sub-PADD level consistent with EIA's policy regarding disclosure of proprietary data. For the heating season October 1, 1990 to March 31, 1991, the Subcommittee understands that the Administrator has decided that weekly propane data should be collected. These data should be published in the WPSR for the 1990-91 heating season. For individual states who choose to collect propane stocks information within their states as a part of the Federal - State Heating Oil and Propane Program (SHOPP), this information will be published in the semi-monthly Winter Heating Fuels Report.

Prices

The EIA will continue to collect and publish price information currently included in the Petroleum Marketing Monthly report. EIA will publish residential heating oil and propane prices twice monthly for each state participating in the SHOPP program. States will collect prices from samples provided or approved by EIA, and submit them within 2-3 days of collection. Collection will be made as of the first and third Mondays of the month. EIA will review and revalidate the state data submissions, and disseminate aggregate data by electronic media within 2-3 days of receipt. EIA will acquire wholesale (rack) prices for distillate and propane from trade sources, and include these prices in the data dissemination indicated above.

Price data should be presented by state where possible, or by Sub-PADD or PADD where, in the opinion of EIA, data confidentiality or reliability would require it. Dissemination will be via a Winter Heating Fuels Report similar to last year's Winter Distillate Report, and will be available from EIA by facsimile, EPUB (EIA's electronic publication system), Dialcom (or other appropriate service), and in published form later in the week following collection.

Study to Examine Contribution of Interruptible Gas Contracts to Market Volatility

The EIA will undertake a study for the Subcommittee of last winter's interruptible natural gas market performance to examine the current and future effects of interruptible natural gas contracts on petroleum distillate, residual fuel oil, and propane markets volatility. The study will focus on Mid-Atlantic area electric utilities. EIA believes that the problems experienced by, or created by electric utilities in this region represents the most appropriate sample from which to extrapolate any issues and problems extant in other geographic areas, as well as any problems that may have been caused by industrial gas users. By reducing the scope from the national scope required in S. 2177, EIA will be able to conduct the study within existing resources, and report to the Subcommittee by the end of June 1991.

Based on its expertise, EIA has determined that a focus on the Mid-Atlantic electric utilities should be studied for the following reasons:

1. The region has the highest electric utility consumption of natural gas for generation in the northern part of the country.
2. In addition to substantial dual-fired base load capacity,

the region has a significant number of dual-fired turbines for peaking units which can burn either distillate or natural gas.

3. Electric utility consumption in this region for all petroleum products increased 103 percent in December 1989 over November 1989, and was 20 percent above December 1988 consumption. Distillate oil consumption increased 302 percent in December 1989, and was 137 percent higher than the December 1988 level.

EIA has a substantial amount of monthly data by plant on electricity generation, fuel usage, and stocks. Tabulations of these data will be used initially to provide background information on the fuel requirements and stock levels maintained. A historical pattern of fuel usage and stock levels will be developed for the heating seasons for the last five years. To complete the analysis, it is envisioned that additional information on timing, duration, and magnitude of gas interruptions, fuel purchases, costs, and inventory requirements may need to be obtained from the electric utilities. Some historical information will be developed for a comparison of last year's severe cold of long duration to milder winter seasons.

The study will look, in more general terms, at the implications of interruptible natural gas contracts in the Lower Atlantic, and in PADD II (Upper Midwest). This study will be provided to the Federal Energy Regulatory Commission when completed.

It is recognized by the Subcommittee that, should funding for a federal-state cooperative program not be forthcoming, the SHOPP program will be comprised of only those states choosing to participate at their expense. Additionally, should sequestration of FY 1991 funds be imposed, EIA may not be able to conduct all the activities indicated above.

Please confirm the substance of these activities in letters to the Subcommittee, Senators Levin and Lieberman, and NASEO. Thank you for your prompt consideration of this important matter.

Sincerely,

Timothy E. Wirth

Timothy E. Wirth
Chairman, Subcommittee on
Energy Regulation and Conservation

Department of Energy
Washington, DC 20585

SEP 27 1990

The Honorable Timothy E. Wirth
Chairman, Subcommittee on Energy
  Regulation and Conservation
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

This is in response to your request for confirmation of the Energy Information Administration's (EIA) plan for addressing the winter heating fuel problems as discussed in the July 26 hearing on S. 2177, "To Improve the Collection and Dissemination of Information Relating to the Supply of Winter Heating Fuels, and for Other Purposes."

With the mutually-recognized resource limitations, EIA is planning to undertake the activities outlined in your letter of September 18, 1990, with the following clarifications:

Pre-Season Analysis

EIA will examine distillate stocks under assumptions of normal and 10 percent colder than normal weather. However, EIA does not currently have the capability to conduct this analysis for propane, since its modeling activities do not forecast demand separate and apart from total liquid petroleum gases.

Propane/Distillate Inventories

As agreed at the Boston Conference on August 15, 1990, with representatives of States participating in the State Heating Oil and Propane Program, EIA will not publish State-level stock data in the Winter Fuels Report. States plan to collect price data, but not stock data. Consequently, EIA will collect these data at the Petroleum Allocation Defense District (PADD) level, with PADD I broken out by sub-PADD's.

As was discussed subsequent to your July 26th hearing, propane data will only be collected for PADDs I, II, and III. Since the vast majority of inventories reside there, this will reduce reporting burden on companies in areas not affected by the weather.

We would like to reiterate the effect of potential budgetary constraints on these programs, specifically that these programs are dependent upon the appropriation of funding requested in the FY 1991 budget by October 1, 1990. If funding is not available by October 1, 1990, the dates in this letter for project completion cannot be met.

Sincerely,

Calvin A. Kent

Calvin A. Kent, Ph.D.
Administrator
Energy Information Administration

Senator **Wirth**. Our third panel is a quite broadly representative panel, and we are very pleased to have them. If they would come and join us at the witness table, Mr. Charles Guinn, the Deputy Commissioner for Policy and Planning for the New York State Energy Office, representing the National Association of State Energy Officials; Mr. John Lichtblau, the Chairman of the Petroleum Industry Research Foundation in New York; Mr. John Gartman, Vice President for Gas Supply and Planning, the Public Service Electric and Gas Company in Newark; Mr. David Langley, Vice President, Business Development and Strategic Planning, Texas Eastern in Houston; and Mr. Robert Greenes, the Executive Vice President of New York Oil and Heat, representing the Petroleum Marketers Association.

This panel of experts will present us, I believe, with differing views on the causes for the crisis, its impacts and what might be done to prevent future crises when mountains of extremely cold air descend from the Arctic and settle over large portions of this country.

We look forward to hearing all of you. And we will start with the Deputy Commissioner for Policy Planning in New York, representing the National Association of State Energy Officials. Their obligation, of course, is to promote energy emergency planning and preparedness, and the protection of public health and welfare.

He will be followed by Mr. Lichtblau of the Petroleum Industry Research Foundation, who is no stranger to this Committee. The panel will then go to the head of Gas Supply and Planning for the Public Service Gas and Electric, and go on from there to David Langley of Texas Eastern, which provides propane transportation, storage, and terminal service for the Northeast, and finally to the New York City-based representative of the petroleum marketers.

Gentlemen, we thank you very much for joining us. Your statements will, of course, be included in the record. I believe you all have heard the previous testimony, and it probably would be helpful if you all could summarize your testimony. And the gratitude of everybody in the room will increase in direct proportion to the shortness of the summary of your testimony.

So thank you very much for being with us.

Mr. Guinn, why not start us off?

STATEMENT OF CHARLES R. GUINN, DEPUTY COMMISSIONER, POLICY AND PLANNING ANALYSIS, NEW YORK STATE ENERGY OFFICE, ON BEHALF OF THE NATIONAL ASSOCIATION OF STATE ENERGY OFFICIALS

Mr. **Guinn**. Thank you. I am glad to be here to represent NASEO, which is an organization of 49 States, Territories and District of Columbia.

We are very much in the business of promoting energy emergency planning preparedness, which is the critical objectives of this legislation. And a point I want to make is to emphasize the role the State energy offices have in this process. It is our job to try to protect consumers from the types of problems we had last winter. We work with other appropriate State agencies, such as the Attorneys General Offices and Consumer Protection Agencies to investigate wrong-doing. In order to do our job, we need more accurate and timely information than we have.

NASEO supports S. 2177 because, one, it would improve the coordination, collection and dissemination of accurate price, supply, storage and inventory data on a regional and State level. This does not exist today. And propane data, as you all know from prior speakers, just did not exist.

The second point is, it does provide an early warning system that we really do not have now. The third point is that it would help industry, especially at the retail level, and major users understand the market and anticipate the future better than they can now.

And fourth, it would improve decision making by local energy officials in responding to problems.

Last December's events are much more complex than it was a very cold December and the market worked eventually. Some other factors include: there really is not much of an incentive for maintaining real inventory; the structural changes in the market; more spot purchases and less long-term contracts have certainly increased the volatility of this market; the distribution system is far more fragile due to consolidation of facilities; the role of heating oil as a winter fuel in electric generation is expanding rapidly; and winter fuel switching has increased the complexity of determining supply, demand and storage relationships.

In addition to all those problems we observed last winter, I think everybody on this panel who read the paper flying down this morning could see that we have problems with the Soviet Union being able to produce more oil and its impact upon the market. The Persian Gulf dependency has gone up, and the concerns there have gone up, not down. Our oil imports are rising. All of these factors, it seems to me, call for, as I think the Chairman said, a better Federal response.

Let me just quickly touch on a few ideas. The first priority for industry and government should be to maintain adequate operating reserve inventories to meet normal and unexpected levels of demand. Simply put, in the existing competitive oil market environment, there does not appear to be a significant incentive to maintain adequate inventory levels to meet both the higher demand of long-term customers and the sudden demand of electric utilities' interruptible gas customers during periods of high demand.

One way to deal with this inventory problem would be an emergency refined product reserve, an RPR, located in consuming regions, which could quickly release product into the market if primary inventories did not meet desired levels and policy makers felt additional supplies were necessary to meet consumer demand given market conditions.

The proposed bill focuses upon a necessary set of EIA data measures which should be improved. I was somewhat surprised and very thankful to hear of all the wonderful things that are going to be happening soon with the States. I am looking forward to the meetings that have been arranged. But I believe that legislation would put into the Federal framework the necessary data collection. And I think we should really strive to have the legislation.

We would recommend that the Congress again fund the heating oil survey and expand it to include propane. It would cost $450,000 a year and would greatly enhance our collective ability to respond to the problem. As was discussed before, the House Appropriations Committee on Tuesday approved this funding level and called for a 50-50 match. We urge the Senate to follow their lead.

Data collection and analysis must be timely. The existing time lag of 6 months—of 6 weeks, I should say, of EIA's weekly data series just makes the information of limited value during market interruptions. If EIA requires more money to eliminate this time lag, they should receive it. And in the detailed testimony we provide lots of ideas, and I noticed that EIA had followed up on some of those ideas with regard to electronic mail.

Finally, a few other ideas to alleviate the impacts caused by last winter. As others have said, modifying and streamlining the Jones Act waiver process, increased Federal assistance for long-term energy conservation measures and alternative energy resource development, the types of programs that Chairman Wirth has supported in the past and the Senate approved in S. 247, would help address these problems. And continued and increased funding of the low-income home energy assistance programs would help address these severe problems that rapid price increases cause for the elderly and low-income members of the population.

Another item which is quite important is to support the Coast Guard's capacity to keep harbors and rivers open during the winter months. These are Federal steps that should be taken.

The States should take some steps also, such as establishing minimum storage and capacity requirements for secondary fuels at electric utilities, other utility generators and interruptible natural gas users; developing improved fuel transportation and handling techniques in critical areas, such as New York Harbor; and encouraging industry to re-implement summer fill programs for residential heating oil customers to smooth out delay and supply problems.

In summary, S. 2177 is a good step. I am looking forward with the other members of the States to work with this Committee and the Department of Energy and to developing some of these things.

And one of the points I would like to make is that I would think the States might want to be included in the types of dialogue you would have with EIA or the types of information. I think there is quite a partnership that could be worked out between the States and the Federal Government in these data series, and we would be there to help you.

[The prepared statement of Mr. Guinn follows:]

NASEO National Association of State Energy Officials

TESTIMONY OF

CHARLES R. GUINN

Deputy Commissioner for Policy & Planning Analysis
New York State Energy Office

on behalf of

THE NATIONAL ASSOCIATION OF STATE ENERGY OFFICIALS

Before the

SUBCOMMITTEE ON ENERGY REGULATION AND CONSERVATION

COMMITTEE ON ENERGY AND NATURAL RESOURCES

UNITED STATES SENATE

Re: S. 2177 and Heating Fuels Problems

July 26, 1990

Chairman
Mitch Beaver
(Illinois)

Immediate Past Chairman
Charles R. Guin
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INTRODUCTION

Chairman Wirth, Subcommittee members, I am pleased to have the opportunity to appear before you today as you consider S.2177 to improve Energy Information Administration (EIA) collection activities and to evaluate the recent EIA report on last winter's heating oil and propane problems.

I am the Deputy Commissioner for Policy and Planning of the New York State Energy Office, and I am the immediate past Chairman and a member of the Board of Directors of the National Association of State Energy Officials (NASEO). Today, I am testifying on behalf of NASEO. NASEO is an organization composed of 49 states, territories and the District of Columbia, and we are committed to promoting energy emergency planning and preparedness, which are the critical objectives of S.2177.

The pressing need for accurate and timely supply, demand and price information for heating fuels during periods of unusual market conditions was dramatically demonstrated over the past heating season. This need is particularly acute in the Northeast region of the country, due to its heavy dependence on both foreign sources of crude oil and petroleum products and on Gulf Coast and Caribbean refineries for inter-PADD (Petroleum Administration for Defense District) transfers of refined heating fuels. The propane problem in certain parts of the Midwest was also significant. Further, the major source of propane supplies, a critical "swing-fuel", in the Middle Atlantic region, is a single pipeline from the Southwest that terminals in Selkirk, New York.

S.2177 would direct the EIA to collect more comprehensive data on wholesale and retail prices and primary inventories of heating fuels (No. 2 distillate fuel oil, propane and natural gas) on a weekly basis during the winter heating season. This information would be published and utilized to determine compliance with recommended primary inventory levels established by the Secretary of the Department of Energy (DOE). The legislation also would direct DOE to conduct a study of the effect interruptible natural gas customers had on the distillate and propane markets during the 1989-1990 heating season. According to the legislation, this study of interruptible gas contracts should recommend the establishment of inventory requirements for backup alternate fuels for holders of interruptible gas contacts.

The coordination, collection and dissemination of accurate price, supply and storage data at the regional and state levels would facilitate improved decision-making by local energy officials in responding to unanticipated supply disruptions or periods of excess demand. These situations invariably result in negative economic impacts and often hold the potential to threaten the public health and welfare, as occurred last winter.

While we support Senator Lieberman's proposed legislation for these reasons, it is imperative that stronger steps be taken at the federal level to address the underlying causes of the recurring market disruptions in the Northeast and Midwest.

BACKGROUND

Long-term supply trends in the energy industry that have concerned analysts for several years became manifest to the average consumer during the most recent heating season, due to the catalyst of sustained abnormally-cold December weather over two-thirds of the Nation, unanticipated refinery shutdowns and fuel switching.

Soon after the cold wave began, the prices of #2 distillate heating oil and propane skyrocketed. By early-January of this year, the retail prices of these fuels peaked at historically-unprecedented levels, and then began to decline as a warmer-than-normal January and February lowered demand. At the end of the 1989-1990 heating season, retail prices in New York State were only slightly higher than the previous year.

As fuel demand escalated rapidly to meet the ongoing cold, supply constraints were initially felt in the propane market for non-residential customers. As demand continued at high levels and refining and transportation problems developed, in part, as a result of the extreme temperatures, concern mounted over the adequacy of #2 home heating oil supplies.

Industry professed to be taken by surprise of these events and attributed the rapid run-up in heating fuel prices to the normal workings of the market. Although stockpiles were somewhat lower than normal going into the heating season, they were confident they could meet demand at reasonable prices. At that time, the consensus forecast was for a milder-to-normal winter and supplies had been adequate in recent years.

As events progressed, it became evident that both the weather forecast and the industry's confidence in their supply capabilities were not on target.

The rapid price increases and actual shortages of propane that followed the onset of winter caused consumers and government to wonder whether large oil companies, market speculators or wholesale and retail fuel distributors were making unjustified profits at their customer's expense.

Investigations were instigated at several governmental levels, including the EIA and several states' Attorneys General, to determine the causes of the price run-up and to identify who may have profited unfairly from the situation.

Preliminary results of the interagency study of this issue conducted by New York State[1], to be released next month, indicate that the extreme cold temperature pattern, with its attendant sustained high level of demand,was a major factor in the heating fuel price increases. While this was not an unexpected finding, what was unusual about the resulting demand increases was the role played by electric utilities and interruptible natural gas customers in the distillate #2 fuel oil market. These groups had not historically been major consumers of this fuel during the winter months.

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[1] "The Home Heating Fuel Crisis", A Joint Study by the Attorney General, State Energy Office, and Consumer Protection Board of New York State.

While electric utilities in New York State are required to maintain adequate reserves of primary generating fuels such as coal and distillate #6 fuel oil, there is no such requirement for secondary fuel supplies. Similarly, interruptible natural gas users are to keep "adequate" supplies of back-up fuels on hand, but in reality tend to rely on the spot market for supplementary fuel purchases.

Naturally, interruptible gas customers and electric utilities are most likely to enter the spot market for significant quantities of #2 fuel oil at precisely the same time as residential heating oil demand peaks. This economic "tug of war" for marginal supplies is heavily tilted in favor of the larger users who are able to pass through higher costs to the consumer.

Other significant factors at work during the past heating season included:

- Reduced access to foreign sources of refined product, particularly in Europe, due to similarly high demand levels early in the season and structural changes in that market, (i.e., reduced levels of U.S.S.R. oil production and exports and increasing European demand for unleaded gasoline).

- Domestic refinery breakdowns, especially in the Gulf Coast area.
- Lower than normal heating fuel inventories entering the heating season.
- Inability at the federal level to quickly react to requests for waivers of the Jones' Act shipping requirements.
- A propane industry with lower capacity and reserve storage than in previous years.

CONCLUSIONS AND RECOMMENDATIONS

The changes in the heating fuels markets which underly this past heating season's price spike can be expected to continue. Action needs to be taken at the industry, state and federal levels to mitigate the impacts caused by higher petroleum demand, lower European refined product exports and reduced domestic crude oil production.

As the Nation's reliance on imported petroleum has escalated, the vulnerability of the transportation and distribution system has become more apparent. Minor disruptions of the system or unusual periods of weather are sufficient to greatly raise the price consumers must pay for essential fuels.

This situation is most noticeable in the Northeast in heating and electric-generation fuels and on the West Coast in the case of transportation fuels. Significant problems occurred in the Middle Atlantic and Midwest regions in the propane market during the past heating season, however.

While Senator Lieberman's bill is a good start in providing a tool to more rapidly respond to an energy supply problem, we feel more needs to be done to prevent and mitigate the market disruptions that cause consumer concern and higher prices.

The first priority for industry and government should be to maintain adequate operating and reserve inventories to meet normal and unexpected levels of demand. Simply put, in the existing competitive oil marketing environment, there does not appear to be sufficient incentive to maintain adequate inventory levels to meet both the higher demand of long term customers and the sudden demand of electric utilities and interruptible natural gas customers during periods of high demand.

While it may be feasible to establish mandated inventory levels for primary suppliers (integrated, terminal and importer companies), it would be nearly impossible at the wholesale or retail level.

More efficient would be an emergency refined product reserve (RPR) located in consuming regions, which could quickly release product into the market if primary inventories did not meet desired levels and policymakers felt additional supplies were necessary to meet consumer demand, given market conditions at the time. NASEO has long supported the creation of RPR or RPR's, which has been set forth in the policy of the National Governors' Association (NGA) for almost a decade. This Winter, NGA reaffirmed its position in support of an RPR. As such, we applaud the effort to create an RPR which is included in H.R. 3193, recently passed by the House Energy and Commerce Committee. We would urge the Senate, in the upcoming conference on the legislation to reauthorize the Strategic Petroleum Reserve, to support the creation of an RPR. We recognize that the product would have to be "turned over" and that any market disruption should be avoided, but this is not an excuse for inaction.

The Lieberman bill also focuses on a necessary set of EIA data measures which should be improved. The pricing and inventory data collection called for in this legislation are a necessary first step in managing fuel shortage situations. We believe the wholesale and retail price information can be most efficiently collected by the existing State Energy Office network. Over the past ten years, states in the Northeast and Midwest have collected residential price data for home heating oil, but not for propane. The discontinuation of partial federal funding provided to the states by EIA several years ago has reduced the level of data collection and the ability to assure timely and compatible information from the states still conducting the survey.

We would recommend that Congress again fund the heating oil survey and expand it to include propane. This would cost a mere $450,000/annum and could greatly enhance our collective ability to respond to problems. The states that do presently conduct the heating oil survey send the information into EIA and see the results six weeks later. This is too slow and improvements are required. We would suggest that states use the electronic mail system (DIALCOM) operated by DOE, which the states participate in, to send the information in and then have DOE quickly summarize the data and send it out to all states on the same DIALCOM system. This would speed the availability of data, which would permit a rapid and educated response. The Department of Energy has begun a propane survey, but they have indicated that it will only be used in emergency conditions, which we believe is insufficient. See EIA Report: An Analysis of Heating Fuel Market Behavior 1989-1990, at xii (June 1990).

Information on current inventory levels is not needed at the state level, as much as it is on a sub-PADD level. This is due to the regional nature of petroleum markets, wherein products are freely traded and transported between adjoining states. State-level data very often results in an inaccurate picture of the supply situation when viewed in isolation. Sun-PADD level inventory data was once reported by the American Petroleum Institute on weekly basis, but it is no longer published.

Finally, the key component of data collection and analysis must be timeliness. The existing time lag of six weeks for EIA's weekly data series makes this information of limited value during market disruptions. If EIA requires more money to eliminate the time lag, then they should receive it. It certainly could not be that expensive, especially in relation to the severe economic dislocation caused by the type of December price spike we suffered through last year.

Other recommendations for alleviating the impacts caused by supply shortages:

- Modify and streamline the Jones' Act waiver process, such that MARAD is able to grant a waiver within twenty-four (24) hours after the Energy Secretary's determination of a supply problem. Rapid waiver approvals would have made a tremendous difference this past winter. We understand there is an ongoing effort to speed the process through an Interagency Memorandum of Understanding, but there is simply no excuse for the glacial pace of MARAD approvals. We believe that DOE moved quickly in this area but could not get cooperation from other federal agencies. We are also hopeful that the comprehensive Oil Spill Liability legislation (S.1465), which is almost completed, will not make it even more difficult to obtain Jones Act waivers.

- Increase federal assistance for long-term energy conservation measures and alternative energy resource development. The type of programs that Chairman Wirth has supported in the past, and the Senate approved in January as part of S.247, the "State Energy Efficiency Programs Improvement Act," will help address long-term energy use problems. These programs include the Low-Income Weatherization Assistance Program, the State Energy Conservation Program, the Institutional Conservation Program and the Energy Extension Service. This legislation will also mandate more comprehensive energy emergency planning at the state level.

- Continued and increased funding of the Low-Income Home Energy Assistance Program (LIHEAP), would help address the severe problems that rapid price increases cause for the elderly and low-income members of the population. Federal assistance has been reduced from over $2.1 billion in FY'85 to $1.39 billion in FY'90. Congress approved an additional $50 million for hard-hit areas as part of the Emergency Supplemental Appropriations Bill in FY'90, which was passed well after the heating season ended. Higher funding as part of the regular appropriations cycle would permit states to address more of these problems when they occur - in the Winter.

- Support the U.S. Coast Guard's capacity to keep harbors and rivers open during the winter months.

In New York State, we are taking several steps to respond to the problems we have identified with the supply system:

- We are working to establish minimum storage and capacity requirements for secondary fuels at electric utilities, other electricity generators and interruptible natural gas users.

- Industry and government are developing improved fuel transportation and handling techniques in New York Harbor.

- Finally, we are encouraging industry to re-implement "Summer-Fill" programs for residential heating oil customers to smooth out demand and supply patterns.

These steps will help reduce peak fuel demand and maintain the smooth flow of products during periods of high consumption.

S.2177 is a good first step, and we hope our suggestions will be considered in modifying this legislation. The critical effort must be in getting this information out quickly. We look forward to working with the Subcommittee and the Department in averting this type of problem in the future.

I am available to answer any questions you might have.

Senator WIRTH. Great, Mr. Guinn, thank you very much. And we certainly would welcome your comments and that of all of your colleagues here at the witness table on the announcement made today by the Department of Energy as we try to hone that down and see if that ought to be altered or modified. And I gathered from the Department that they were pretty open to that. Let us see if we can work this out.

Mr. GUINN. It sounds like they read our testimony.

Senator WIRTH. Well, they told me beforehand that they had and they greatly appreciated it as well.

Mr. Lichtblau.

STATEMENT OF JOHN H. LICHTBLAU, CHAIRMAN, PETROLEUM INDUSTRY RESEARCH FOUNDATION, INC.

Mr. LICHTBLAU. Thank you very much for inviting me to this hearing, and I was very please that Secretary Easton has already introduced me during his remarks.

We have been asked to comment on S. 2177 and on any policy changes that should be considered in light of the EIA's recent analysis of heating fuel behavior.

Our own report on the subject, called "A Season of Extremes," published a month before the EIA's, is attached to our statement, and I would like to enter it into the record. The summary of this report is part of my testimony.

Our findings, I would like to say, which are summarized in our statement, generally agree with the EIA report. The market worked as well as could be expected under extremely unusual and difficult circumstances and actually succeeded in supplying all of the oil to all customers in the Northeast throughout the critical period. There was no evidence of collusion or withholding of supplies in order to raise prices. Hence our study and the EIA study come to the same conclusions on the broad issues and the important factors behind them. I trust this enhances the credibility of the EIA study.

The very steep increases which occurred in December can be traced to the highly exceptional weather. If the weather in December had been a 1 in 10 colder or a 1 in 20 years colder, prices would not have gone up enough to create any kind of public outrage or even be noticed by the media. But when you have the coldest December in 60 years, they did explode for about one-third of the prime heating season, roughly a 4-week period, causing, understandably, grief, anger and financial hardship to many consumers.

By the turn of the year, prices were up 50 percent higher than the year before, and December consumption for a typical Northeast consumer was probably about one-third higher. However, over the entire heating season, a typical heating oil consumer in the northeast likely used less oil in 1989–1990 than in the year before because of much warmer January through March. And his cash outlay for heating was about 10 to 15 percent higher than in the previous heating season.

Understandably, the representatives of these consumers want to be sure that last winter's price spikes are not repeated next winter or in a future winter. Unfortunately, no such assurance is possible in a competitive market. However, the price spikes occurred entirely because of extremely unusual extraneous factors. Under less extreme circumstances like those that occur in most heating seasons, the market could be assumed to work efficiently and require no direct or indirect governmental intervention or bureaucratic guidance.

It is important that last season's unique experience not be used to initiate policies and programs which could be counterproductive. For instance, detailed monitoring of wholesale and retail prices and inventory levels State by State and company by company, as proposed by the bill, are unnecessary. Last winter, the Northeastern States collected published residential heating oil prices on an ongoing basis throughout the heating season. Perhaps some of these States may require additional encouragement. But the collection at the State effort is such that I think it is already being done, and at the same time we know that the EIA itself is also increasing its efforts to collect data, as we just heard. And I think this should be encouraged. But it does not require additional legislation.

It should also be pointed out that price differentials between States and between local markets and the State average are not necessarily a sign of greater or lesser competitiveness. The differences could be due entirely to variations in distribution and other costs.

The provision in S. 2177 which calls for recommended national, regional and State inventory levels and the system of public notification when these levels are not met is not only an unnecessary measure in a competitive market, but also potentially a damaging one. The levels recommended by the Federal Government would probably be biased on the upside under the criteria stated in the bill. Thus, there would be an ongoing conflict between actual and recommended stock levels. In this conflict, State legislatures may be under pressure to make the DOE's recommended State levels mandatory.

Thus, the proposed recommendations could well be the first step towards mandatory inventory control. In fact, such a development would be quite likely since, in a competitive market, individual companies cannot increase their inventories to comply with the Statewide or regional recommendations. Thus, any gap between the real and the hypothetical inventories, between the government inventory targets and the actual physical inventories, could only be closed by enforcement. Inevitably, any mandated inventory increase would raise the cost of doing business and hence the consumer price of the heating fuel in question.

Furthermore, setting recommended stock levels is unrealistic for the Nation and impossible for subregions. The market balances stock levels among regions. Product moves from the Gulf Coast to consuming regions. Marketers in the consuming regions are willing to pay a premium or not, depending on the supply/demand situation in that region. A temporary imbalance is therefore not cause for government intervention. And the industry distribution centers, such as New York Harbor, do not respect State boundaries.

Finally, Senator Wirth has asked us to address the issue of interruptible gas sales. Indeed, the ripple effect of surging demand for heating fuels was critical in December. And a study of seasonal swings in fuel use would probably be useful to understanding how markets would react in times of difficulty.

Gas use in December rose substantially above year-ago and month-ago levels. Virtually all firm customers got their supply. Withdrawals from storage hit a new monthly record during December. But the need to meet the weather-related demand increase pulled supplies away from others, who turned to oil, exacerbating the stress in the oil markets, although some argue that the volumes are not large relative to total oil demand.

These volumes come at the margin, and in December the price impact at the margin, as Dr. Merklein pointed out, may have been considerable. We estimate that about 130,000 barrels per day of incremental distillate was supplied to electric utilities and industrial plants last December. The EIA has a very similar estimate.

Now, this was equal to 3.3 percent of total U.S. distillate consumption. Most of the additional consumption was probably due to substitution for natural gas. Interruptible service has traditionally helped the gas industry balance the seasonal demands of its heating customers.

In the coming years, the role of the interruptible market segment will become even more important since the need for increased electric generation will require the installation of more turbines that can run on gas or distillate. This means more seasonal fuel switching in the future.

Data on the interruptible segment of the gas market and how it reacted in December is not readily available. A study to determine to the current impact of interruptible gas contracts on energy markets would be very useful to policy makers and the industry. Furthermore, such a forecast would help assess whether the price volatility of last season may become a more commonplace feature in the future.

This concludes my testimony, Mr. Chairman. I will be very happy to answer any questions. Thank you.

[The prepared statement of Mr. Lichtblau follows:]

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COMMENTS ON S. 2177:

The Distillate Market's Not Broken So Why Fix It

Testimony by

JOHN H. LICHTBLAU

before the Subcommittee on
Energy Regulation and Conservation
of the Committee on
Energy and Natural Resources
United States Senate

July 26, 1990

In his letter inviting us to testify at today's hearing, Senator Wirth asked us to comment on S. 2177 and any policy changes that should be considered in light of the Energy Information Administration's recent report, *An Analysis of Heating Fuel Market Behavior, 1989-1990*. Our own report on the subject, *A Season of Extremes*, published about a month prior to the EIA report, is appended to my statement for the record.

- ***In a season of extremes, the market worked: a summary of our May report***
  - The heating oil market in December 1989 was put under extreme stress by the historically cold weather, a stress made worse by supply factors, but functioned properly to get oil where it was needed, when it was needed.
  - The market at all levels reacted to the extreme demand with soaring prices which rapidly came down when degree days, and hence the supply/demand situation, eased.
  - On the demand side, the weather caused dislocations throughout energy markets. Demand for heating fuels--oil, gas, electricity, propane--rose in line with degree days, and then rippled throughout the market, notably, back to oil. Increased gas use in the residential sector, for instance, had to draw on gas supplies from other sectors; those other sectors had to turn to alternatives, primarily oil. Increased electricity use put an additional strain on all generating fuels.
  - On the supply side, inventories at the beginning of the season were lower than the previous year, but in line with earlier years. Imports in the early part of the season were lower than in previous years because of competition for supplies in world markets. Refiners rapidly responded to the developing supply/demand situation in December with sharply increased output, but were stopped in their tracks by the bad weather of Christmas week, which was so severe at the Gulf Coast that refineries were damaged.
  - The January thaw, like December's cold, was extreme. The supply/demand balance quickly righted itself. Prices at the wholesale levels responded instantly, giving back half of their increase in one week. Retail prices also quickly retreated from the peak, but did not return to the November level.

- ***Comments on S. 2177: No major policy initiatives or interventions are necessary***

My first comment is that our findings summarized above agree with the EIA report: the market worked as well as could be expected under extremely unusual and difficult circumstances and actually succeeded in supplying all the oil to all customers in the Northeast throughout the critical period from mid-December to early January. There was no evidence of collusion or withholding of supplies in order to raise prices. Hence, our study and the EIA study come to the same conclusions on the broad issues and the important factors behind them.

The very steep price increases which occurred in December can be traced to the highly exceptional weather. In a month where the weather was "one-in-ten" colder than normal or even "one-in-twenty" colder, prices would not have risen enough to call public attention to them. With the coldest December in sixty years, however, they did explode for about one-third of the prime heating season (roughly a 4-week period), causing, understandably, grief, anger and financial hardship to many consumers. By the turn of the year, prices were up to 50% higher than the year before, and December consumption for a typical Northeast consumer was probably about one-third higher. However, over the entire heating season, a typical heating oil consumer in the Northeast likely used somewhat less oil in 1989-90 than in the year before and his outlay for heating was 10-15% higher.

Understandably, the political representatives of these consumers want to be "sure" that last winter's price spikes are not repeated next winter. No such assurance is possible in a free and competitive market. However, the price spikes occurred entirely because of extremely unusual, extraneous factors. Under less extreme circumstances--like those that occur in most heating seasons--the market could be assumed to work efficiently and require no direct or indirect governmental intervention or bureaucratic guidance. It is important that last season's experience, painful as it may have been in December, not be used as a reason to initiate policies and programs which may be counterproductive.

- *Price monitoring programs already underway and under development are likely to be adequate*

Detailed monitoring of wholesale and retail heating fuels prices and inventory levels, state-by-state and company-by-company, as proposed in S. 2177, is unnecessary. Last winter, the Northeastern states (all the states from Pennsylvania to Maine) collected and published residential heating oil prices on an ongoing basis during the heating season. Perhaps some of these states may require encouragement to continue. The Energy Information Administration already has an extensive collection and publication effort for state prices on a monthly basis, and is currently increasing its efforts to provide timely and comprehensive data for the oil consuming states. S. 2177's additional prescribed detail is unlikely to be needed.

Some states already provide considerable detail. New York, for instance, publishes regional prices for nine regions within the state. It should be pointed out that price differentials between states or between local markets and the state average are not necessarily a sign of greater or lesser competitiveness. The differences could be due entirely to variations in distribution and other costs. For instance, in New York, upstate prices of heating oil are always lower than downstate prices. A primary reason is different distribution and property costs, although different market profiles also play a part.

- *Recommended inventory levels will be counterproductive*

The provisions in S. 2177 which call for recommended national, regional and state inventory levels and a system of public notification when these levels are not met is not only an unnecessary measure in a competitive market but also potentially a damaging one. The levels recommended by the Federal government would probably be biased on the up side under the criteria stated in the bill. Thus, there would be an ongoing conflict between actual and recommended stock levels. In this conflict state legislatures may be under pressure to make the DOE's recommended state levels mandatory. Thus, the proposed recommendation could well be the first step towards mandatory inventory control. In fact, such a development would be quite likely since in a competitive market individual companies cannot increase their inventories to comply with the state-wide or regional recommendations. Thus, any gap between the real and the hypothetical inventories could only be closed by enforcement. Inevitably, any mandated inventory increase would raise the cost of doing business and, hence, the consumer price of the heating fuel in question.

Furthermore, setting recommended stock levels is unrealistic for the nation and impossible for subregions. The market balances stock levels among regions--product moves from the Gulf Coast to consuming regions, marketers in the consuming regions are willing to pay a premium or not depending on the supply/demand situation in the region. These movements are a central part of the ongoing balancing act of the market, safety valves. A temporary imbalance is not cause for government intervention. And the industry's distribution centers, such as New York Harbor, may not respect state boundaries.

- *Further study will help us understand the impact of interruptible gas contracts*

Senator Wirth has asked us to address the issue of interruptible gas sales. Indeed, the *ripple effect* of surging demand for heating fuels was critical in December, and some study of seasonal swings in fuel use would be useful to understanding how markets will react in times of difficulty.

Gas use in December rose substantially above year-ago and month-ago levels. Virtually all firm customers got their supply. Withdrawals from storage hit a new monthly high. But the need to fuel the weather-related demand pulled supplies away from others, who turned to oil, exacerbating the stress in oil markets. Although some argue that the volumes are not large relative to total oil demand, they come at the margin, and in December 1989, the price impact, at the margin, may have been considerable. We, like the EIA, estimate that about 130,000 B/D of incremental distillate was supplied to electric utilities and industrial plants last December during the colder weather, equal to about 3.3% of total

U.S. distillate consumption. Most of the additional consumption went to substitute for natural gas.

Interruptible service has traditionally helped the gas industry balance the seasonal demands of its heating customers. In the coming years, the role of the interruptible market segment will become even more important, since the need for increased electric generation will require the installation of more turbines that can run on gas or distillate. This means more seasonal fuel switching in the future.

Data on the interruptible segment of the gas market, and how it reacted in December, is not readily available. A study to determine the current impact of interruptible gas contracts on energy markets, as mandated in S. 2177, will be useful to policy makers and the industry. Furthermore, a forecast of the role of interruptible contracts would help assess whether the price volatility of this season may become a more commonplace feature of the heating season.

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A SEASON OF EXTREMES:

DECEMBER'S FREEZE AND JANUARY'S THAW

May 1990

I. INTRODUCTION AND SUMMARY

The record cold in December led to record prices for heating oil. The duration of the cold was historic: the Northeast experienced six weeks of weather that was 30% colder than normal, unprecedented, and particularly damaging for the early heating season when inventories must be kept relatively high.

The upheaval moved like a tidal wave through the market. Higher demand in the weather-sensitive markets competed for supplies with electric utilities and industrial facilities, where users unable to get incremental gas supplies switched to oil. We estimate that the abnormal cold caused distillate consumption to surge by an extra 500 thousand barrel per day in December, about 350 thousand B/D in the space heating market, more than 100 thousand B/D in the utility market, and some 50 thousand B/D in industrial and other markets. (See Section V.) At the same time Europe's cold weather reduced ready import supplies. The distribution system was stretched taut--barge capacity was fully utilized, and bad weather delayed normal delivery schedules. The cold caused operational problems at refineries, just as the supply system was most vulnerable.

Given the consumer's essential and--in the short-term--inflexible need for substantial increments of distillate oil on the one hand and the developing delivery and supply constraints on the other, the extreme price increases from mid-December to early January reflected the natural and inexorable interaction of market forces. Terminal prices for distillate in the New York metropolitan area peaked in early January at $1.10 per gallon, almost double the mid-November level. Consumer prices in the Northeast peaked at about the same time, having increased as much as 40-50% in one month.

Following December's historic cold was January's thaw, the warmest January in the Northeast in 40 years. Overall, the November-March heating season was 3% warmer than normal. Prices at the wholesale level responded instantly, giving back half of the increase within one week and returning to the pre-freeze price level by the beginning of February. Retail prices, which had lagged somewhat on the way up, dropped quickly from the peak, but did not return to November levels. Overall, consumers in the Northeast probably paid 10-15%, or $100-$150, more for distillate fuel oil in the 1989-90 heating season than in the year before.

This memorandum reviews the historic December, how the market reacted, and the market's performance through the end of the heating season in April. The longer perspective allows us to move away from the estimates made during the cold and use more complete data which are available only with a lag. More importantly, it allows us to see how the market worked. Consumer impact, for instance, onerous (if inevitable) at the peak, was ameliorated by the end of the season by falling prices and warmer weather. Hence, the view from the end of the season is very different from the view at the peak.

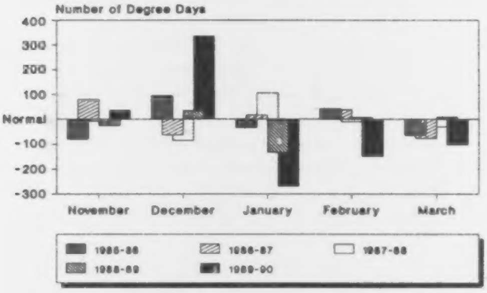
II. WHAT HAPPENED TO THE WEATHER?

Figure I illustrates that the Northeast's 1989-90 heating season was one of extremes. The '89-90 prime season (December through February), shown by the black bars, was consistently further from normal weather than other recent seasons--much colder, much warmer. Furthermore "December's" cold wave actually started in mid-November.

It is important to understand the cold was historically unique because commercial entities plan operations around normal circumstances, with a reasonable leeway to deal with contingencies. They do not plan for one-in-fifty, or one-in-one hundred market conditions. Oil companies are no different.

Figure I

Degree Days in the Northeast
Deviation from Normal



III. WHAT WAS THE SUPPLY PICTURE AT THE BEGINNING OF THE HEATING SEASON?

A. Inventories

In the last decade, changes in oil markets have dictated that companies reduce their stocks of crude and product. Stocks of distillate fuel oil followed the trend.

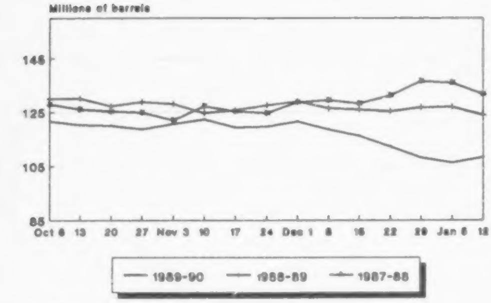
▪ *Declining demand* requires lower stocks. Residential demand for heating oil fell from nearly 1 million B/D in the mid-1970's to 500 thousand B/D in 1989.

▪ *Consolidated operations* reduce required inventories as well. One terminal with a higher utilization rate can do the work of multiple facilities. According to the National Petroleum Council's (NPC) 1988 report, *Petroleum Storage & Transportation*, the shell capacity of distillate tanks in the Mid-Atlantic and New England was 73 million barrels, down from 109 million barrels in the NPC's 1978 survey. U.S. distillate storage capacity fell to 221 million barrels, from 319 million.

As a result of these factors, it was not surprising that distillate inventories at the beginning of the 1989-90 heating season were only about half of the levels seen a decade ago. However, at 121 million barrels, end-October stocks in 1989 were just 5% below 1988 and equal to 1987 levels. Thus, they were not out of line with recent historical inventories and were definitely adequate for a moderately colder-than-normal winter. It should be pointed out in this connection that the National Weather Service's 90-day forecast published at the end of October, was predicting warmer than normal conditions over the Atlantic Coast and Northeast."

Figure II

U.S. Distillate Stocks
October - January



Source: American Petroleum Institute

The difference in stock cover, then, was not the inventory level at the *beginning* of the heating season in comparison with earlier years. Rather, it was what happened to stocks as the season progressed. As shown in Figure II, inventories in the 1988-89 season grew between end-October and end-November, and by end-December, were only 5 million barrels below the starting point. In the 1987-88 season, end-December inventories were 13 million barrels *above* the starting point. Contrast these inventory changes with the 1989-90 season when inventories had to be drawn down 2 million barrels in November and 14 million barrels in December.

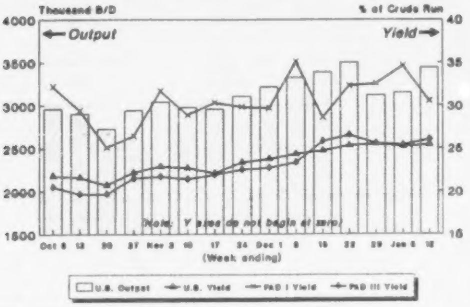
B. Refinery Operations

With refinery crude oil runs over 13 million B/D, each percentage shift in the distillate fuel oil yield resulted in 130-135 thousand B/D change in output. Distillate fuel yields generally swing from a low of 19-20% in the summer months to a high of 22-23% in the heating season. Even from the high end of the range, yields can technically be increased for short periods. Thus, the market routinely counts on incremental supply from U.S. refining operations during the periodic cold snaps that make up the regular winter season; for instance, a one-percentage point increase in the yield for one week would make up the demand surge for one week of 10% colder than normal weather in December.

Figure III shows weekly refinery operations data and distillate yields for October to January as reported by the American Petroleum Institute's *Weekly Statistical Bulletin*.

Figure III

Distillate Output and Yields
October 1989 - January 1990



Source: American Petroleum Institute

Refinery operations responded to the cold weather with rapidly increased distillate yields and output. From less than 3 million B/D in early November, refiners brought distillate output to 3.5 million B/D by mid-December. Yields rose 4 percentage points. On the East Coast, refiners took the yield to 35% for brief periods. The Philadelphia area, like other areas of the Northeast, was experiencing transportation logjams in December both because of the weather conditions and the soaring demand. Thus, even if product could be produced, it was not guaranteed that a barge would be available or able to move it. Hence these extraordinary yield levels were not maintained at all times.

By the time the cold hit the South, just at Christmas time, Gulf Coast refineries were producing distillate at close to historical maximum levels. Stocks were being drawn as fast as possible. Waterborne transportation in the Northeast was stretched to the limit: deliveries slipped their schedules, new supplies needed ten days to work themselves into the schedule. Stocks in New England had fallen by 50% since early November. At 3.9 million barrels, they were at a record low for so early in a heating season.

The arctic Christmas weather wreaked havoc in the Gulf Coast refining areas. As the graph shows, distillate output was forced down because refineries could not fully operate--pipes burst, pumps, valves and gauges froze. Over Christmas week crude oil runs in PADD 3 (the Gulf Coast) were forced down 1.5 million B/D. Among the companies affected were Chevron, Cities, Hill, Koch, Marathon, Mobil, Phillips, Shell and Sun. In the same period, an explosion and fire at Exxon's 455,000 B/D facility in Baton Rouge, LA, removed about 100,000 B/D from distillate output. The combination of these factors made a price explosion in the second half of December virtually inevitable in a competitive market where marketers at all levels were scrambling to meet their customer's essential needs while their suppliers had to cope with unforeseen transportation problems and technical supply disruptions.

c. Imports

As the heating season approached, import availability was one supply component which was a source of concern. In October Hurricane Hugo had severely damaged storage facilities at the Hess refinery in St. Croix, V.I., second largest import supplier of distillate to the East Coast (after Venezuela). However, by November the volume had been restored to its normal share of the East Coast market, and between November and December its volumes nearly doubled.

European imports, however, were less available as the temperature fell, because cold weather in Europe had kept exports to the U.S. East Coast down. In December 1988, distillate imports from Europe to the East Coast were 41 thousand B/D (including the USSR and Rumania). In December 1989, they virtually dried up.

In December 1988, the East Coast was able to draw supplies from 14 import sources. In sharp contrast, December 1989 only shows 4 import sources of distillate, the top three routine suppliers, Canada, Venezuela and the Virgin Islands, plus Mexico, a minor supplier. These areas of course are all geographically best suited to supply U.S. markets. The truncated foreign supply is a clear indication that Soviet, Eastern Europe, African, Middle Eastern and European supply was being used abroad. Hence, December 1989 imports to the East Coast totaled 312 thousand B/D -- 85 thousand B/D, or 20%, lower than December 1988 volumes.

IV. WHAT HAPPENED TO DEMAND?

The real story in December was *energy* demand:

- Weather-sensitive demand soared for all heating fuels--distillate, residual fuel oil, propane and natural gas, both directly, and, through surging electric demand, indirectly;

- As natural gas was sucked into residential burners, it had to be replaced in other uses. Interruptible gas users such as industrial facilities, cogenerating plants and electric utilities had to scramble for alternatives, turning to distillate, residual fuel oil and propane.

a. Electricity

According to the Department of Energy's Energy Information Administration, U.S. electricity generation in December 1989 was 11% higher than December 1988. (From January through November the 1989 electricity generation had been 2% above 1988 on average.) As the table below shows, the increases were concentrated in the South, but covered the area east of the Rockies. In some weeks, the hardest hit regions were sustaining generation increases of 20-30% from year ago levels. Rolling blackouts were necessary for load management in Florida and Texas; New England had voltage reductions. New winter peaks were set in widespread National Electric Reliability Council regions (Pennsylvania-New Jersey-Maryland Interconnection and Electric Reliability Council of Texas, for instance) and utilities across the country: Commonwealth Edison, Duke Power, and Southern Company to name some of the larger utilities. Setting new *all-time* peaks were Florida Power, Florida Power & Light, Niagara Mohawk, Tampa Electric, TVA, and Virginia Power, among others.

Table I

Electricity Generation by Region, December
(GWH)

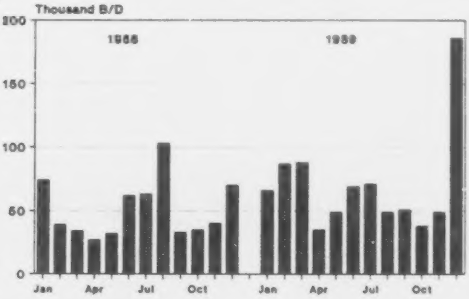
	1988	1989	%Ch
New England	8965	9952	11
Mid-Atlantic	28571	32826	15
E.N. Central	40712	44517	9
W.N. Central	18228	20189	11
S. Atlantic	44400	52104	17
E.S. Central	20097	23703	18
W.S. Central	26923	30888	15
Mountain	20991	20920	-
Pacific Contiguous	22781	22545	-1
Pacific Non Contiguous	1085	1078	-1
U.S.	232752	258722	11

Source: U.S. Department of Energy, Energy Information Administration.

The difference for oil demand in December 1989 was the need for incremental electric generation. Because gas heating demand surged, it was not available for the increase. Gas moves out of the power generation market and into the heating market each season and gas consumption for electric generation was in fact higher in December 1989 than in December 1988. According to EIA's *Electric Power Monthly*, gas consumption for electricity generation was almost 25% higher in December 1989 December 1988 (some of the increase reflects a price-induced fuel switching from gas to fuel oil in December 1988). Heavy oil consumption also increased, but only by 11%; conversely to gas, its December 1988 base was higher because of the aforementioned fuel-switching. Light oil consumption, however, as shown in Figure IV, soared to 186 thousand B/D, from 70 thousand a year earlier, a 165% increase.

Figure IV

Light Oil Consumption for Electricity Generation



Source: EIA, *Electric Power Monthly*

A strong indication that oil was substituting for gas in electric power generation was the regional distribution of the oil increase. EIA does not publish light versus heavy oil consumption data by region. But because the increase in residual fuel oil consumption for electric generation was relatively lower, changes in total oil consumption give an indication of how the 116 thousand B/D light oil increase was distributed across regions. The biggest percentage increases, by far, were in regions that are not traditionally oil dependent for electric generation. The West North Central, the East South Central, and the West South Central regions, using 13 thousand B/D in December 1988, suddenly needed 78 thousand B/D in December 1989. This increase had to fall largely on distillate supplied from the Gulf Coast which could otherwise have come to the East Coast.

b. Residential Demand

Consumption of fuels used for heating of course leaped in inverse relationship to the plummeting thermometer. Natural gas consumption in the residential sector rose 24% December-on-December. Propane, like distillate fuel oil, had to feed both residential heaters and the peaking needs of utilities; its total consumption rose 28%.

We estimate that distillate fuel oil consumption for space heating rose by 350 thousand B/D during December's cold weather. According to an annual survey by *Fuel Oil and Oil Heat*, a trade publication, residential consumers in the Northeast use on the average about 900-1000 gallons of distillate fuel per season, which works out to about 150-160 gallons for each thousand degree days. With December's cold adding about 300 degree days to normal weather, then, the distillate consumption increment per household, multiplied by the number of households using distillate, confirms the volumes suggested by broad supply/demand data.

c. Industrial Demand

The increase in industrial use of distillate is more difficult to quantify. The generally available data series of the EIA do not break down industrial sector information. In the absence of reliable data on distillate use, we must turn to anecdotal information. According to preliminary estimates, gas use in the industrial sector rose on the order of 10 percent. The sharp curtailments in interruptible volumes, however, were important for distillate demand. The impact was particularly strong in the South Atlantic (Maryland to Florida). Utility information suggests that their customers' replacements for the curtailed gas volumes represented the equivalent of up to 50 thousand B/D.

d. Demand Summary and Reconciliation

According to PIRINC's estimates, then, December's distillate consumption was at least 500 thousand B/D above its expected levels because of the abnormally cold weather: 350 thousand in the residential/commercial sector, 116 thousand for electric power generation, and perhaps 50 thousand B/D in the industrial sector.

This estimate in broadly in line with Energy Information Administration calculations: according to the EIA, petroleum consumption rises 0.11 percent for each 1.0 percent increase in heating degree days above normal.* Based on this calculation the degree-day increase (above normal) in December 1989 would have led to a consumption increase of more than 500 thousand B/D. EIA's sensitivity factor reflects very recent analysis to update its earlier (lower) estimate of degree day affect on petroleum consumption.

How was the increment supplied? According to the EIA's monthly data, 3.9 million B/D of distillate in December 1989 was supplied out of the primary system, a 350 thousand B/D increase from December 1988. What about the additional 150 thousand B/D we estimate was consumed?

- *Some of it came out of secondary and consumer stocks.* Primary system supplies include refinery output, imports and stock changes in "primary" inventory locations--refineries, pipelines, water-accessible terminals, and other large terminals. By definition, it excludes stocks held by any consumers, even bulk purchasers such as utilities. The EIA's *Electric Power Monthly* shows that utilities drew their own light fuel oil stocks down by 47 thousand B/D, compared to an 8 thousand B/D draw in December 1988. Thus, while utilities increased their consumption by 116 thousand B/D between December 1988 and December 1989, their purchases rose by only 76 thousand B/D. DOE's primary supply data record the smaller figure.

- *Some of the BTU's demanded were consumed as jet fuel.* In December 1989, kerosene jet fuel supplied on the East Coast soared by more than 100 thousand B/D over year-ago levels, after showing no increase for the first 11 months. Nationwide, the kero jet increase was 231 thousand B/D in December 1989, once again, after little growth in the first 11 months. Clearly this increase was not caused by the sudden flight of holiday vacationers. Rather, it was the emergency use of kero jet fuel for power generation by turbine and for enhancing distillate supplies via blending. Some would have been counted as "light oil" utility consumption. EIA does not generally publish end-use data on kero jet fuel moving into the industrial sector or used for blending, however.

- *Diesel fuel use for transportation may have dropped in December.* Diesel prices rose 25 - 30 cents/gallon in the regions most affected by the cold weather, according to the trade publication, *Lundberg Letter*. While the spike was evident in the second half of the month, hence muting its impact on December's volume, it cannot be assumed that a price increase of this magnitude would have no effect. Furthermore, stormy weather, especially of the severity encountered in the South, impedes ground transportation, further shaving volume from expected levels.

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* U.S. Department of Energy, Energy Information Administration, *Short-Term Energy Outlook*, 2nd Quarter 1990, DOE/EIA-0202(90/2Q), p. 15.

V. WHAT HAPPENED AFTER DECEMBER?

As noted previously, the January thaw this season was extreme. With more than 20% fewer degree days than normal, January 1990 was the warmest in more than fifty years. The demand surge for both oil and gas ended abruptly. Gas availability again magnified the swing in oil demand, since oil was backed out of its own temperature-sensitive load and out of the power generation spike in (normally) gas-fired capacity. As discussed in the next section, prices on volatile open markets rapidly fell back from their year-end peaks.

Distillate demand in January fell to 3.2 million B/D, a 20 percent drop from December, and a 4 percent drop from the year before. February demand, at 3.3 million B/D, was 5 percent below year-ago. Altogether, first quarter 1990 demand for distillate fuel oil was about 8 % below the EIA's *forecast* demand for the period and 4% below 1st Q '89.

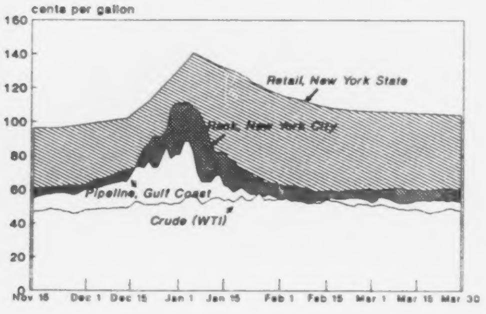
It should be pointed out that the January thaw was more than welcome. By year-end distillate stocks in the Northeast were so low that if the abnormally cold weather had lasted another 10-12 days sporadic physical shortages may have occurred. As it was, apparently no distillate customer had its fuel oil supplies delayed or curtailed during December. But in New England, for instance, distillate stocks at year-end had fallen to an historic low of 3 million barrels, about half the year-ago volume. Thus, the dramatic weather turnaround at year-end came just in the nick of time for consumers.

VI. WHAT HAPPENED TO PRICES?

In December prices soared, inventory values rose, refiner margins on distillate improved, as did margins between wholesale and refiner prices. However, margins between wholesale and retail prices eroded because wholesale prices rose faster than retail prices. In January prices fell, inventory values dropped while refiner and wholesale margins shrunk. However, retail margins recovered and stayed relatively strong throughout the remainder of the prime heating season.

Figure V

Heating Oil Prices
November 1989 - March 1990



This outline of price movements is illustrated in Figure V. The prices began to increase after several weeks of cold weather. Wholesale prices, measured as New York metropolitan area terminal prices, went from about 61 cents/gallon in mid-November to more than $1.10 in early January (*Platt's Oilgram Price Report* "low" quote). A week later, by January 10, these prices had fallen 25 cents, thus giving back half of the increase in one week. Prices on Gulf Coast spot markets rose more slowly than terminal prices in New York Harbor, and fell more rapidly: they rose by about 30 cents, and in that same week in early January gave back three-quarters of their increase. By early February, these prices were back to November levels.

a. Retail Prices

Retail prices, while rising at historic rates and gathering widespread press attention, in fact lagged the increases seen at both the refiner and wholesaler level in December . By the time those prices were peaking, the *gross* retail margin in New York had eroded to almost half its November level. During this same period, retailers were incurring extraordinary costs to meet their customer commitments. Overtime rates for delivery truck drivers are one example of increased unit costs which reduced net margins even further. Thus, during the crisis month of December heating oil dealers actually saw their gross and net profits squeezed despite soaring retail prices. This applied particularly to the majority of the dealers who hold little or no inventory of their own but operate by filling their trucks and then distribute the load to their customers.

The retail price decline, as noted, was slower than that of the more volatile spot and wholesale prices. By the end of March, New York State retail prices were 37 cents off their January peak, and 8 cents--about 8 percent--above their mid-November starting point. The end-season price this year was 10 cents above last year's, an increase not based on increased product cost since terminal prices were at about the same at the end of March in each year. Thus, the retailer's gross margin was higher at the end of the 1989/90 season than at the beginning and higher than last season. There are offsets, of course. Retailers pay expenses such as personnel costs which rise about in line with inflation, regardless of oil markets, and also have been badly hit in recent years by increased insurance costs, as all oil distributors have. It should also be kept in mind that retailers, unlike wholesalers and refiners, are not just purveyors of a commodity but provide an individual service of door-to-door delivery to their customers. Hence, at any given moment their price is only partly determined by the cost of the fuel they distribute.

b. A Note on Inventory Profits

What of inventory profits? Everyone with inventories in hand makes money when prices rise and loses money when prices fall. The oil industry, however, just like everyone else, has adopted a much leaner inventory stance in recent years. With fewer days' cover in tank, inventory profits are of necessity more limited; inventories must be replenished more often, and thus price run-ups have a shorter time to develop between shipments. In December, the industry was operating hand-to-mouth, so inventory profits were not a big issue. Another change for the industry's treatment of inventory has been the introduction of the futures contract for No. 2 oil. At least some market participants hedge their inventories with futures transactions, reducing their risk of loss, but limiting their participation in favorable price moves as well. Hedged volumes do not make inventory profits.

c. Consumer Costs

December's price spike was onerous for consumers, and particularly difficult for those on fixed or low incomes. A 200-gallon delivery on January 3, 1990, for instance, may have cost almost $100 more than the same volume a year earlier, or even just a month earlier. Overall, a typical consumer in the Northeast paid 10-15% ($100-150) more in the 1989-90 heating season than in the 1988-89 season. The range is of course created by differences in prices and delivery schedules across the region. This estimate accounts for the faster consumption during December and the slower consumption in January, February and March of this season.

It is important to note that a consumer with a large tank (or tanks) would have been particularly benefited this season, since a delivery at the price peak might have been avoided.

According to industry estimates, between one-quarter and one-third of heating oil customers pay under a budget or "even-payment" plan, a fixed payment each month, with a final adjustment in the off-season, often June. For most of these customers, the higher prices have not yet been felt. This season, unlike most, will end with consumers owing their suppliers money. (Some dealers and customers increased the monthly payment at mid-season to avoid this imbalance at the end of the budget year.) Budget plans provide an important source of financing for dealers in the early season, which they pay back, in essence, as the season progresses. The December prices exhausted the account surpluses built up to that time, leaving some operators cash-short in the peak season.

In addition to budget plans, which have been part of the heating oil business for many years, wholesalers and retailers have also become more innovative in designing fixed price or "price insurance" mechanisms. While some may have been offered prior to the 1989-90 season, many new plans have been offered recently, since the customer's distaste for the December price spike has made him or her ready to explore new ways to protect against a recurrence. For the supplier, of course, the fixed price plans offer a tool to increase market share. While the plans vary substantially in design, most involve hedging expected volumes with futures and/or options transactions.

Senator **Wirth**. Thank you.

Mr. Gartman, your statement will be included in full in the record, and any summary you could move to would be greatly appreciated. Thank you.

STATEMENT OF JOHN A. GARTMAN, VICE PRESIDENT, GAS SUPPLY AND PLANNING, PUBLIC SERVICE ELECTRIC & GAS CO., NEWARK, NJ

Mr. **Gartman**. Thank you, Mr. Chairman. My name is John Gartman and I am the Vice President of Gas Supply and Planning for Public Service Electric and Gas Company.

Public Service is a large local distribution company, or LDC as it is called. We provide natural gas service to 1.5 million customers, or approximately 75 percent of the State of New Jersey. 1.3 million of these customers are residential, and we take our public utility obligation to seeing that these customers get reliable service at reasonable prices very seriously. We are a very large company with a diverse market and are relatively typical of what, if there is such a thing, you would view as an average LDC in the Northeast.

In this testimony I will address three principal points. First, I would like to explain the problems that existed in the natural gas market during the 1989–1990 winter season and how these problems were handled. Secondly, I will address the manner in which Public Service and LDCs in general plan to meet the gas requirements of their customers, and the price and the reliability implications of this method of planning. And third, I will address the question of interruptions of interruptible customers and the effects of that on distillate oil demand and price.

First, going to point No. 1, last winter was a very unusual one in terms of weather, both in the Northeast and, for us more importantly, in the Gulf Coast producing areas, particularly offshore in the Gulf of Mexico.

December was the coldest on record in New Jersey and in much of the rest of the Northeast, and at a time when the demand was very heavy in the market area, we experienced major supply disruptions due to unprecedented sub-freezing weather in the Gulf of Mexico. Over the Christmas weekend, due almost entirely to large volume production freeze-offs in the Gulf of Mexico, we experienced 50 percent curtailments of deliveries from our largest supplier of gas, Transco, and about 20 percent curtailments of deliveries from our second largest supplier, Texas Eastern.

These temporary major supply disruptions caused us to prematurely draw on our limited stocks of liquefied natural gas and propane in order to meet the heavy market demand. This occurred very late in December, and by this time propane prices had already skyrocketed, and propane was essentially completely unavailable in the Northeast.

In order to restock our propane inventory, we sent trucks to Louisiana and we obtained rail car deliveries from Minnesota and North Dakota, which are obviously routes that are much outside of the normal areas of distribution.

We also borrowed and purchased some natural gas for a couple of days to help offset the temporary supply disruptions. Although things were rather hectic for this short period of time, Public Service and other LDCs maintained reliable service to their customers despite a major disruption in supply, and also without any significant increase in price.

Since last winter, steps have been taken to add large volumes of production area storage to provide even greater levels of supply reliability for the future.

Now, moving to the second point I would like to address. Despite the extremely cold weather during the early part of last winter, Public Service customers and most of the other LDC customers saw very little or no increase in the price for a number of reasons. During the wintertime, all pipelines to the Northeast part of the country are essentially operating at capacity, and this is the case even in a warm winter. Since pipeline capacity is not available to transport additional gas volumes to the Northeast from the Gulf Coast producing areas, the Northeast LDCs are not able to increase the purchases of gas during a cold winter.

Since we are not able to get additional volumes of gas transported, Public Service and most other LDCs in our area rely heavily on the withdrawal of gas in storage to meet a very high percentage of their winter season gas requirements.

Public Service has about 72 million dekatherms of gas storage capacity and this is equal to about 45 percent of the total winter season requirements of all of our firm gas customers.

In our planning, we plan for and maintain sufficient storage inventories to meet the forecasted demand for an extremely cold winter. This type of planning results in a relatively constant level of gas purchases, regardless of whether the weather is cold or warm, because storage is used to absorb the fluctuations in demand. The resulting stability in gas purchase demand tends to minimize price increases during periods of heavy demand.

Public Service, like many other LDCs, or all other LDCs for that matter, are regulated by State regulatory commissions who regularly review our gas supply plans and our gas supply situation and show a great deal of interest and concern in assuring that we maintain adequate supply levels.

Now, moving to the third point that I would like to make, and that is the issue of interruptible gas customers. Public Service probably has more interruptible gas customers than any other company in the country. We have about 500 interruptible customers. These customers do now and always have been interrupted during cold periods during the winter season. The bulk of the interruptible market utilizes residual fuel oil as an alternate fuel and not distillate oil.

For the 1989–1990 winter season, Public Service interrupted service to its interruptible customers that used distillate oil as an alternate fuel for 15 days. This compares to an average of 7 days of interruption over the last 2 years, 2 prior years. The added interruptions equate to about 120,000 barrels of distillate oil, and this is equal to about 0.6 percent of the quantity of distillate oil that is used in New Jersey in a normal year.

We are also a combination electric and gas utility and we use small quantities of gas on a interruptible basis in combustion turbines during the winter season, and these combustion turbines are dual-fired with distillate oil. During the 1989–1990 winter season we only purchased 2,454 barrels of No. 2 oil for electric generation, and this is a substantial drop from an average of 44,000 barrels that we purchased over the previous 3 winter seasons on average.

Additionally, over the last year we have converted over 12,000 residential customers from oil to gas heat, and this reduces the demand for distillate oil by about 200,000 barrels of oil. Although we are a very large LDC, we certainly do not account for all or even most of the gas market, even in the Northeast. But I think that the situation that we have is generally indicative of the types of situations that exist for other LDCs in our area, and it is inconceivable to me that what is a very insignificant increase in the No. 2 oil demand caused by gas interruptions that we have seen in the last winter season had any material effect at all on the oil availability or price.

In summary, I would just like to point out that the gas industry handled the very significant problems that did exist during the 1989–1990 winter season relatively well, and gas consumers received reliable service at stable prices. Additionally, in my judgment, the interruption of interruptible customers did not have any material impact on the supply or the price problems of distillate oil.

This concludes my prepared remarks, and I thank you for affording me the opportunity to testify here today.

[The prepared statement of Mr. Gartman follows:]

UNITED STATES SENATE
SUBCOMMITTEE ON ENERGY REGULATION AND CONSERVATION
HEARING ON S.2177

TESTIMONY OF

JOHN A. GARTMAN

VICE PRESIDENT -
GAS SUPPLY AND PLANNING

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

JULY 26, 1990

TESTIMONY OF JOHN A. GARTMAN - S.2177

Good afternoon. My name is John Gartman and I am the Vice President - Gas Supply and Planning for Public Service Electric and Gas Company. Public Service provides natural gas service to about 1.5 million customers or approximately 75 percent of the State of New Jersey. 1.3 million of these customers are residential and we take our public utility obligation for seeing that these customers stay warm at reasonable prices very seriously. Being in a relatively cold climate with a large number of heating customers, our gas requirements vary tremendously from day to day, depending on the weather. Just to give you some perspective, our peak winter demand is about eight times as great as our demand on a summer weekend. We are a very large company with a diverse market and are relatively typical of an average LDC in the Northeast.

In this testimony I will address three principal points. First, I will explain the problems that existed in the natural gas market during the 1989-90 winter and how they were handled. Second, I will address the manner in which Public Service and LDC's in general plan to meet the gas requirements of their customers and the price and reliability implications of this planning; and third, I will address the question of interruptions of interruptible gas customers affecting distillate oil demand and price.

First, point number one. Last winter was a very unusual one in terms of the weather both in the Northeast, and in the Gulf Coast producing areas, particularly offshore. December was the coldest on record in New Jersey and much of the Northeast and at a time when demand was heavy in the market area major gas supply disruptions were experienced due to unprecedented subfreezing weather in the Gulf of Mexico. Over the Christmas weekend due to production freeze-offs we experienced 50 percent curtailments of deliveries on the system of our largest supplier, Transco and about 20 percent from Texas Eastern. These temporary major supply disruptions caused us to prematurely draw on our limited stocks of LNG and propane inventories to meet a heavy market demand. This occurred in late December and by then propane prices had already skyrocketed and propane was almost completely unavailable in the Northeast. In order to restock our propane inventory we sent trucks to Louisiana and obtained rail car deliveries from Minnesota and North Dakota. We also borrowed and purchased some natural gas for a couple of days to help offset the temporary supply disruption. Although things were rather hectic, Public Service and other LDC's maintained reliable service to their customers despite a major disruption in supply and without any significant increase in price. Since last winter steps have been taken to add large volumes of new production area storage to provide even greater levels of gas supply reliability for the future.

Moving to point number two. During December and January distillate oil and propane prices increased substantially as I am sure you are all aware. Public Service's and most other LDC's gas consumers saw little or no increase in price for a number of reasons. During the winter season, all pipelines to the Northeast are essentially operating at capacity, even in a warm winter, so additional pipeline deliveries cannot be counted on to meet high demand levels. Public Service and many Northeast LDC's rely on the withdrawal of gas in storage to meet a high percentage of their winter season gas requirements. Public Service has approximately 72 million dekatherms of gas storage which is equal to 45 percent of the total winter season requirements of our firm customers. We plan for and maintain sufficient storage inventory to meet forecasted demand during an extremely cold winter. This type of planning results in a relatively constant level of gas purchases, regardless of the weather, because storage is used to absorb the fluctuations. The resulting stability in demand tends to minimize price increases during heavy demand periods. Public Service like other LDC's is regulated by a State regulatory commission who regularly reviews our gas supply plans and supply situation and has shown a great deal of interest in assuring that adequate supply levels are maintained.

Moving to the third and last point. Public Service has about 500 interruptible gas customers that are now and have always been interrupted on cold days. The bulk of this market utilizes residual fuel oil, not distillate oil as an alternate fuel. For the 1989-90 winter season Public Service interrupted service to interruptible customers with No. 2 distillate oil as an alternate fuel 15 days compared to an average of 7 days over the last two years. The added interruptions equate to about 120,000 barrels of distillate oil. This is only about 0.6 percent of the quantity of distillate oil used in New Jersey in a normal winter season. Public Service is a combination electric and gas utility and also uses gas on an interruptible basis in its combustion turbines to generate electricity, most of which utilize distillate oil as an alternate fuel. During the 1989-90 winter season we purchased 2,454 barrels of distillate oil for electric generation, a substantial drop from an average of 44,000 barrels purchased over the previous three winter seasons. Additionally, over the last year we converted over 12,000 residential customers from oil to gas heat, thereby reducing distillate oil demand by over 200,000 barrels. Although we are a very large LDC, we certainly don't account for the whole gas market, but I think that our situation is generally representative of many other LDC's. It is inconceivable to me that this insignificant increase in No. 2 oil demand due to gas interruptions had any material affect on oil availability or price.

In summary, the gas industry handled the significant problems of the 1989-90 winter relatively well and gas consumers received reliable service at stable prices. Additionally, in my judgment interruption of interruptible gas customers did not have any material impact on the supply and price problems of distillate oil.

This concludes my prepared remarks and I would be happy to address any questions.

Thank you.

Senator **Wirth**. Thank you, Mr. Gartman. We appreciate you being here and Public Service for sending you down.

Mr. Langley.

STATEMENT OF DAVID L. LANGLEY, VICE PRESIDENT, BUSINESS DEVELOPMENT AND STRATEGIC PLANNING, TEXAS EASTERN PRODUCTS PIPELINE CO.

Mr. **Langley**. Mr. Chairman, I also thank you for the opportunity of being here today. Copies of my prepared statement have been provided to this committee via counsel. There have also been copies provided to the audience here today.

Senator **Wirth**. That will be included in full in the record.

Mr. **Langley**. So what I would like to do is make my comments very brief, not dealing with what is in my prepared statement, but making some comments about some of the statements which have been made by others today.

In due deference to Senator Bradley's comments about our being saved by the fact that we had an extremely warm January and February, I agree with the comment by, I think it was Mr. Easton in the previous panel, that the industry response to what we saw in the month of December was extraordinary. The import levels, the volumes coming into the East Coast to supplement domestic supplies was extraordinary. There were cases where some companies who were bringing volumes into the East Coast for the January–February time frame had to divert those volumes to other locations because of the fall-off in demand and took some extreme hits on those transactions.

The other item that I would like to talk about is the cooperation that we saw as we went through the month of December and early January, and it was with the various State agencies including the State of New York and Mr. Guinn and his office and various other States. Also, with the U.S. Department of Energy, I think the cooperation that we saw from that organization was outstanding. I know Mr. Easton has taken a lot of heat from time to time about the position that DOE took on what transpired during the month of December and January, but I think the conclusions by the DOE overall were dead on.

In addition to that—and it was not through collusion, it was through industry cooperation—the industry in particular in propane, I think, rose to the occasion that we were experiencing in the month of December, and through efforts of all of the participants in the industry we were able to take care of the critical needs in the Northeast market during that very critical period.

Finally, before I move on to bill S. 2177, I would like to say that Texas Eastern on an ongoing basis has been looking at putting in additional storage and increasing our throughput capability into the Northeast market as far as propane goes. The difficulty we have had in the past is because of the extremely high capital cost associated with those kinds of investments and the very rare occasions where we have needed to bring those kinds of resources to bear in the marketplace.

We are very positive right now about that particular situation because we are approaching the situation on a joint venture approach. And again, we are positive that this may prove to be a viable solution to the problem that we experienced in December.

Turning to S. 2177, I wholeheartedly agree with the comment made by Mr. Lichtblau on the minimum inventory situation. I think if anything, that could be a counterproductive measure. It is going to send some wrong signals to the wrong people in certain situations, and again, I think it could also be counterproductive as far as providing State inventory information.

One thing, especially in the case of propane that is critically important if S. 2177 is enacted, is that in the case of propane where you have large volumes of inventory, such as on the Texas Eastern system at Watkins Glen, New York, that propane is used to serve the major portion of their New England market, not just New York. So, it is critically important that people not misunderstand State-by-State inventory information.

The final point, again, on State inventory information is that certain facilities, such as the Providence, Rhode Island import terminal, inventory information that may be reported about that facility that could be terribly misleading in that a cargo could be arriving within 2 days of a reporting date, and the inventory information would look extremely severe, and yet within 2 days the inventory is going to be replenished and the supply situation will be considerably better.

Those conclude my remarks, and again, I appreciate the opportunity to be here.

[The prepared statement of Mr. Langley follows:]

THE WINTER OF 1989-90

UNITED STATES SENATE
SUBCOMMITTEE ON ENERGY REGULATION AND CONSERVATION
HEARING ON JULY 26, 1990

PREPARED STATEMENT BY
DAVID L. LANGLEY
VICE PRESIDENT - BUSINESS DEVELOPMENT & STRATEGIC PLANNING
TEXAS EASTERN PRODUCTS PIPELINE COMPANY

Good afternoon. My name is David Langley and I am Vice President of Business Development & Strategic Planning for Texas Eastern Products Pipeline Company (TEPPCO). At the outset of my remarks, I want to make sure that it is clear to everyone the role TEPPCO plays in the propane market in the states our system serves. TEPPCO's role is to provide pipeline transportation, storage and terminaling services in a common carrier mode pursuant to tariffs filed with the Federal Energy Regulatory Commission (FERC). It is to TEPPCO's advantage to move as much volume as possible through our pipeline system and it is to our financial disadvantage to prorate our system or in any way restrict volumes being delivered from our system in the Northeast.

The TEPPCO system originates in Southeast Texas and serves markets in the Midwest and Northeast U.S. Our system transports a full range of petroleum products including gasolines, distillates, propane and butanes.

Two major components of our pipeline system that are significant in understanding my subsequent comments are:

(1) Our main line system originates in the Mont Belvieu, Texas area and terminates in the Todhunter, Ohio area. This pipeline is twenty (20) inches in diameter.

(2) Our pipeline system from Todhunter to Selkirk, New York is eight (8) inches in diameter.

East of Todhunter, TEPPCO owns and operates seven common carrier propane truck terminals, including three in the state of New York. We also deliver propane to three customer owned delivery points on this system east of Todhunter. Attached to this statement is a map of the TEPPCO system.

In order to accommodate the substantial seasonal swings in propane demand, TEPPCO owns and operates underground storage facilities at Watkins Glen, New York and Greensburg, Pennsylvania. This enables us to meet peak winter demands, which far exceed our pipeline delivery rates into the area. This increase in total deliverability is accomplished by positioning propane in our storage facilities in the Northeast during the summer months.

In a few moments, I would like to address certain proration actions taken by TEPPCO during the months of December and January. However, to put these comments into perspective, I would like to briefly touch on the level of propane deliveries from our system in the state of New York, which is the major area we use to serve the Northeast market. During December of 1989, our total deliveries were roughly 40% higher than December of 1988. During the month of December, 1989, Degree Days (i.e., the relative measure of temperature) in the state of New York ranged from 30-35% greater (i.e., colder) than December of 1988. Therefore, the demands on our system were significantly above not only anticipated levels, but also levels directly correlated to Degree Days.

The net result of this extremely high level of deliveries was an abnormally rapid drawdown rate on the Watkins Glen inventory. A much faster rate than was anticipated. As a result of this depletion of stored propane, we prorated deliveries on our system east of Todhunter on December 15. For the delivery terminals in New York plus two TEPPCO terminals in Pennsylvania, this proration was based on two propane supply components. Those were the inventory in storage at Watkins Glen and the pipeline feeding the Northeast from Todhunter. For the delivery points on our system in New York, the December 15 proration level was roughly 80% of the delivery volumes during the first fourteen days of December. It should be noted that the pipeline system from Todhunter is also used to supply LPGs to other delivery points in Ohio and eastern Pennsylvania.

During the week following December 15, TEPPCO had many conversations with propane industry and government representatives relative to the near term outlook for propane supply availability in the Northeast. Based upon the statements and representations made by various suppliers relative to their ability to provide additional propane for the Northeast market commencing in very early January, we increased our December 15 proration levels at the delivery points in the state of New York by 33% on December 22.

This increased proration level was not based on a magical increase in supply on our system in the Northeast. The increase was simply the result of accelerating the drawdown rate of the Watkins Glen inventory. Again, this action was taken to facilitate "a bridging of the gap" in the availability of propane in the Northeast until offshore supply sources could arrive in the area.

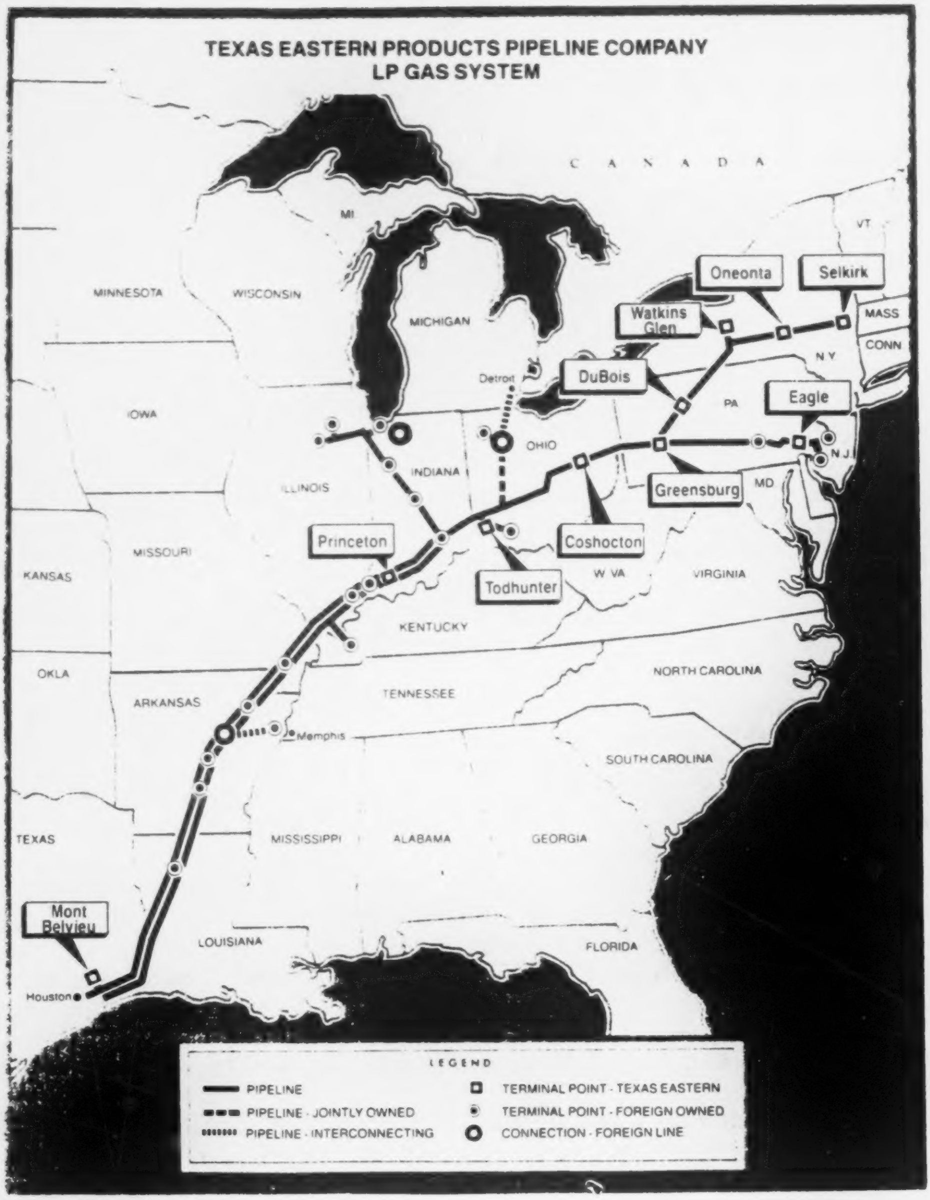
On January 2, TEPPCO again revised its proration level for delivery points in the state of New York based on the inventory of propane in storage at Watkins Glen on that date. For our average Customer, the January 2 proration level equated to 96% of the original December 15 proration level. The modifications to the proration levels on January 2 were based upon the projected arrival of additional propane supplies into the Northeast during the

January 4-6 time frame. These projected supplies did in fact arrive as planned.

Finally, on January 30, all of our Customers in New York were advised that we were lifting our allocations at all three terminals serving the state.

Prior to closing, I would like to add that TEPPCO on an on-going basis evaluates the viability of increasing our storage capacity and our pipeline throughput capability in the Northeast. Due to the magnitude of the investment associated with these options, we are currently evaluating a joint venture approach to these expenditures and this approach may prove to be viable.

This concludes my prepared statement. Thank you.


TEXAS EASTERN PRODUCTS PIPELINE COMPANY
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FLORIDA
Houston
LEGEND
PIPELINE
PIPELINE - JOINTLY OWNED
PIPELINE - INTERCONNECTING
TERMINAL POINT - TEXAS EASTERN
TERMINAL POINT - FOREIGN OWNED
CONNECTION - FOREIGN LINE

Senator WIRTH. Thank you, Mr. Langley We thank you very much.

Mr. Greenes.

STATEMENT OF ROBERT B. GREENES, EXECUTIVE VICE PRESIDENT, NEW YORK OIL HEAT, ON BEHALF OF THE PETROLEUM MARKETERS ASSOCIATION OF AMERICA

Mr. GREENES. Thank you. On the theory that brevity gets point, I will attempt to be brief. I will skip around most of my written testimony, which you have, and I will try to point out some areas that have not been touched on today. I have owned and operated a distillate and residual oil company in New York City for some 35 years, so my remarks and opinions are colored by my own experience.

Distillate marketers generally are local small businessmen who have been serving their communities for 50 years or more. They are not the major oil companies. They buy products from major oil companies and terminal operators and they resell it, and they depend upon their customers' loyalty. That is why it is in their best interests to do whatever they can to avoid significant price increases.

The underlying causes of the price increase has been attributed to the cold weather, the coldest weather in 60 years. We believe there are other important causes that we should touch upon; the unavailability of pollution liability insurance, increased environmental laws that put pressure on tank storage leading to a reduction of inventory capacity, the increasing incidents of interruptible gas demand, and EPA's plan to create segregated storage for distillate oil that must be acknowledged and dealt with if we are going to avoid a repeat of December 1989.

In general, we agree with the provisions of S. 2177 as to information collection. We think the mechanism exists; perhaps the system should be augmented and improved in quality and content. We were encouraged to hear Dr. Merklein this morning indicate some of those improvements. We must remember, though, that whatever we do in weighing the costs of data collection, that all the data in the world cannot prevent a crisis. It merely facilitates a description.

We oppose the requirement for inventory levels contained in S. 2177 for the same reason as Dr. Lichtblau stated. We think there are alternatives to minimum storage that places the economic burden of the storage on those responsible for creating the emergency, rather than on the general public, who will pay for such storage.

I notice in the definition of S. 2177, the definition of distillate oil is oil used for heating and diesel. It seems to me that we have been emphasizing the heating oil aspect of distillate and we really should not be doing that. 50 percent of the distillate yield goes into other than heating oil purposes, and what happened last December did not affect only heating oil consumers. It affected truck operators who use diesel fuel, bus operators who use diesel fuel, farmers who use diesel fuel and airlines who use jet fuel. All those prices went up.

So, it was not, in effect, only on heating oil consumers that we are talking about or the benefits to the gas consumers. We are talking about everybody in this country. Certainly those east of the Rockies were affected by what happened last December. We must remember that.

It is against that background that I would like to point out specific things that happened that could occur. PMAA believes that oil marketers did a great job last December. They took care of all their customers' homes, farms, businesses, even under the worst conditions. PMAA believes, however, that while they did everything they could to manage tight supplies, there are still significant problems and they could get worse. We believe that the Subcommittee should be aware of those problems and do whatever they can to alleviate them if possible.

What is more uncertain is how the system—its inability to handle the ever increasing demand caused by natural gas utilities, forcing their bargain-rate customers to switch to oil during the coldest weather. These so-called interruptibles are generally large-volume users such as commercial and industrial facilities. These users are offered a discount rate by the utilities when the weather is warm, with the agreement to be cut off when the weather gets cold. It should be noted that these gas utilities could build capacity and supply natural gas on a full-time basis for the interruptibles.

But these utilities choose not to be the full-time gas suppliers because the cost of interruptible service, plus alternative fuels are traditionally less expensive than year-round, non-interrupted gas service. Coming, as they do, with the time of peak distillate oil demand, these large incremental loads disrupt the delivery system and they can send oil commodity prices skyrocketing.

With respect to the utilities' need for additional distillate oil, it is interesting to notice that in certain publications last December and January, I would like to quote from a utility spokesman. According to the Northeast Power Report article, a number of utilities in the Northeast were forced to use a staggering amount of expensive fuel oil to fire peaking turbines during the deep freeze of December 1989 a Northeast Power Report spot survey showed. The survey indicates that utilities far exceeded their own fuel use expectations, in some cases by more than 300 percent.

Because of this, Consolidated Edison Company of New York was buying distillate oil in the market every day, in some instances to furnish electricity to Canada where hydro-electric plants were frozen. Some comments by fuel buyers for utilities include these. I quote, "We are buying oil like crazy. We are in the market every day," and "I was an animal going for every truck and barge load I could get. I was running out. Once the utilities kick in their combustion turbines, it puts a tremendous strain on the same oil distribution terminals used by the fuel dealers."

PMAA believes this massive unanticipated demand from utility customers with inadequate standby storage to cushion the effect was the pressure point, the last straw, if you will, that drove the distillate oil market to its unprecedented price increases.

One of our local utilities, Brooklyn Union Gas, who terminated a lot of their interruptible customers, in their quarterly report in January of 1990 proudly claims a financial benefit as a result of selling surplus gas to other utilities, failing to mention that they curtailed their own bargain-rate customers in the same period.

In addition, many of the utilities took advantage of a situation they helped create, PSE&G being one of them, Mr. Gartman's company, who placed an ad in December and January which is part of my testimony, which said, "Had Enough? Switch to Gas Heat and Avoid the Headline," at the same time as the 15 days that they were interrupting their customers, who they forced to buy distillate oil and helped raise the price.

They were not the only ones. Brooklyn Union Gas, who cut off their customers as well—gas heat is boring; it is price stable. It is plentiful. It is dependable. It is so predictable. This, at the height of December when it was cold.

We were forced, obviously, to react to those ads. And so we placed our own ad in the New York Times, saying just a few places cut off by dependable gas heat, listing probably hundreds of customers who were cut off, including some of PSE&G's customers, Seton Hall University, Merck & Company, Maxwell House, E.R. Squibb and so on.

The facts sometimes belie the impression that is attempted to be created that gas is a dependable all-year-round fuel, and for some reason fuel oil is not. The fact of the matter is that fuel oil is the fuel of last resort. When other fuels fail, when natural gas can not supply its customers, when electric utilities demand a fuel for peak shaving, the fuel they demand is distillate oil.

We encourage a study of the interruptible gas phenomenon. We think it takes unfair advantage of the other segments of the population. It makes heating oil consumers, diesel truck operators, bus operators and airline jet fuel subsidize the gas industry's inability to take care of their customers on a firm basis all year round. And we think that is unfair.

I would like to comment on Dr. Merklein's offer to do the study on a limited basis. We think the study that he suggested may be inadequate. We think it should include all of the States which use distillate fuel for home heating and distillate oil for diesel. And we think in the minimum it should include commercial users and not just utilities.

There is one other interesting thing that is about to occur that I think I should point out to this Committee. EPA is in the process of establishing a low sulfur fuel deal specification for on-road diesels to be effective in 1993. When this is adopted, it will in effect create a need for handling two separate distillate fuels. It will mean separate tanks, mean separate storage, separate trucks, pipeline segregation, et cetera. This will further limit the present infrastructure from effectively meeting two separate and distinct demands for distillate.

If this rule had been in effect in December 1989, it is my opinion that instead of experiencing only a high price supply, we would have experienced the same situation as propane—no supply, with all of the consequences that a no supply scenario implies.

Congress should be requiring EPA to consider the market effect of this proposed rulemaking, something we have urged that has not yet been endorsed by EPA.

PMAA and I appreciate the opportunity to express our views on these important issues, and we look forward to working with the Government and the Congress to identify the most cost-effective solutions to particular energy emergencies.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Greenes follows:]

PMAA
PETROLEUM
MARKETERS
ASSOCIATION OF
AMERICA

Statement of

ROBERT GREENES

on behalf of

PETROLEUM MARKETERS ASSOCIATION OF AMERICA

Before the

United States Senate

Committee on Energy and Natural Resources

Subcommittee on Energy Regulation and Conservation

On

S. 2177

Relating to the Supply of Winter Heating Fuels

July 26, 1990

1120 VERMONT AVENUE, NW • SUITE 1130 • WASHINGTON, DC 20005 • (202) 331-1198

MEMBERS OF THE PETROLEUM MARKETERS ASSOCIATION OF AMERICA

The Petroleum Marketers Association of America (PMAA) represents the independent petroleum marketers who are members of these state and regional trade associations:

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Arizona Petroleum Marketers Association
Arkansas Oil Marketers Association, Inc.
California Independent Oil Marketers Association
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The Petroleum Marketers Association of America is located at 1120 Vermont Avenue, N,W., Suite 1130, Washington, D.C. 20005. Telephone: (202) 331-1198. FAX: (202) 467-6330

Good morning Mr. Chairman and members of the subcommittee. My name is Robert B. Greenes. I am executive vice-president of the New York Oil Heating Association, a trade association representing over 100 heating oil marketers in the New York Metropolitan area. Prior to that, I owned and operated a large heating oil company in New York City for 35 years, delivering oil to homes, apartment buildings, and interruptible gas customers, as well as diesel fuel. I am here today representing the Petroleum Marketers Association of America (PMAA). PMAA is a federation of 43 state and regional trade associations representing nearly 11,000 small and independent petroleum product wholesalers and retailers. Collectively, these marketers sell approximately 75 percent of the home heating oil, over half the gasoline and approximately 60 percent of the diesel fuel consumed in the United States annually. I currently serve on the PMAA Heating Fuels Committee. I am also a past president of PMAA and of the Empire State Petroleum Association (ESPA), PMAA's New York member association.

The subject of this hearing is one of great concern to me and to independent oil marketers nationwide. This is because the distillate price increases of this past December had a tremendous impact not only on millions of heating oil consumers, but also on transportation related distillate users, such as diesel and jet fuel.

PMAA appreciates the subcommittee's interest in the distillate fuel issue and commends you, Mr. Chairman, for holding this hearing today.

Distillate oil retailers are essentially local small businesses. Many have been serving the community for 50 years or more. They are not affiliated with the major oil companies except to the extent that they buy product from them which they resell to the consumer. Because they are local companies they understand the dramatic impact such price increases have on their customers. In addition, these marketers must compete against utility fuels for their customers' loyalty; that is why it is in their best interest to do whatever it takes to avoid significant price increases.

Although we know that the underlying cause of the price increases in December 1989 was the coldest weather in more than sixty years, PMAA believes that there are other important causes such as unavailability of pollution liability insurance, increased environmental pressure on tank storage -- leading to a reduction in inventory capacity, increasing incidence of interruptible gas demand, and EPA's plan to create segregated storage for distillate oil that must be acknowledged and dealt with if we are going to prevent a repeat of what happened last December. Our testimony will respond to Senator Lieberman's S. 2177, a bill introduced on February 26, 1990, "To improve the collection and dissemination of information relating to the supply of winter heating fuels..."

Survey of Fuel Prices Provision of S. 2177 Must be Realistic

In the short term we believe that Department of Energy (DOE) and the Energy Information Administration (EIA) should continue to monitor both the price and supply of distillate oil both prior to and during the heating season. S. 2177 would establish new data collection systems at EIA, designed primarily to provide weekly information on distillate and propane prices and stock levels at the state level (the EIA already collects and publishes weekly inventory data at the PADD level).

In theory, PMAA applauds the goal of improving the data available to analyze distillate fuels markets, particularly in times of market disruption. Despite popular perceptions, marketers of petroleum are, like consumers, at risk of financial loss in times of short supply. We are concerned, however, about the means used to achieve this goal, and ultimately must question the tradeoff between generating accurate, useful and timely data, and imposing undue burdens on the entities required to supply the raw information.

EIA currently publishes biweekly data on distillate stocks and prices in the Northeast during the winter months. Data are obtained primarily from state energy offices. On a monthly basis, EIA publishes data on distillate prices and sales (as well as primary inventories) in exhaustive detail. A sample of over 2,300 petroleum marketers is required by current law to submit to EIA each month a completed Form EIA-782B (Attachment A), detailing sales and price data for various products by end use. This requirement may impose a costly burden on many small companies, as well as on the government.

If the weekly price data required in S.2177 are to be collected in a similar manner, i.e., by surveying a sample of sellers on a weekly basis about their operations, then PMAA must oppose such a requirement. It is not clear that the usefulness of the information would in any way outweigh the extreme reporting burden that would be imposed.

In addition, the national scope of the requirement goes significantly beyond need, as the distillate fuel used is regional in nature. In fact, in EIA's current and comprehensive monthly system for generating distillate marketing data, only 24 states are used in drawing the sample of marketers. Of these, the Northeastern states remain the most significant consumers of heating oil.

Fundamentally, therefore, the proposed system would duplicate data collection efforts already underway at EIA. As stated earlier, price data are currently complied by EIA on a biweekly basis based on state data. Perhaps this system could be augmented to improve quality and content.

The problem with much of EIA's data relates more to timeliness than to substance. The detailed monthly marketing data are published with a three-month lag, so that December 1989 data were not made publicly available until March of the following year. Devising a means of accelerating this process may also go a long way toward improving data availability.

In short, PMAA believes that it would be far more efficient and cost-effective (not to mention far less burdensome to respondents) to work within EIA's existing data collection systems than to create a new one. Finally, of course, it should be remembered when weighing costs and benefits of these proposals that all the data in the world cannot prevent a crisis, but merely facilitate its description.

PMAA Opposes Inventory Levels Requirement Provisions of S. 2177

PMAA opposes a requirement that the petroleum industry be required to maintain minimum primary inventories. The costs of storage whether at a primary or secondary level are substantial. In addition to the actual physical costs involved, there is the cost of borrowing money to purchase the oil that is in storage. Also, there is the price uncertainty. A company that stores excessive product is gambling that the price of heating oil will not fluctuate dramatically. During the past several winters, because the weather has not been particularly severe for prolonged periods of time, excess product in storage would have forced refiners and marketers to pay unnecessary costs which ultimately would have been passed on to the consumer.

PMAA is also worried that if refiners, importers, and terminal operators are trying to maintain minimum inventory levels there will be less product available to build secondary storage. This is important since secondary storage is the storage closest to the consumer.

In addition, PMAA believes there are alternatives to minimum storage requirements that place the economic burden of storage more on those responsible for creating the emergency than on the general public who will ultimately pay for such storage. In order to adequately put forth this alternative, however, it is necessary that some background be given.

PMAA Supports the Interruptible Study Provision of S. 2177

As a result of the efforts of thousands of independent marketers, the Northeast region's fuel needs were met at the end of last year and the beginning of this year. Many heating oil dealers and their employees worked around the clock during the cold snap to ensure that all of their customers had the oil they needed to heat their homes. In addition, many heating oil retailers actually absorbed the additional expenses they incurred as a result of the cold weather. These expenses included overtime for drivers and dispatchers as well as higher transportation costs. In sum, oil marketers have an excellent reputation for providing service to homes, farms, and businesses, even under the worst conditions.

However, PMAA believes that while oil marketers did everything they could in December 1989 to manage tight supplies to meet the needs of their customers, significant problems did in fact exist and are, in all likelihood, going to get worse. We believe this subcommittee should be aware of these problems and do whatever it can to alleviate them as much as possible.

Due to environmental costs and the lack of pollution liability insurance nationwide, it is no secret that fuel storage capacity has been eroded, and the distribution chain is straining to move product. Pipelines, barges, terminals, bulk plants, trucks and manpower are being pressured to their limits. However, PMAA remains confident that the distribution and secondary storage systems are adequate to manage the needs of year round distillate consumers.

What is more uncertain, however, is the system's ability to handle the ever increasing demand caused by natural gas utilities forcing their bargain rate customers to switch to oil during the coldest weather. These so-called interruptible users are generally large volume users such as commercial and industrial facilities. These users are offered a discount rate by the gas utilities in exchange for the utilities' right to cut off their gas supply when the weather gets cold. It should be noted that these utilities could build capacity and supply natural gas on a full-time basis for the interruptibles, but these utilities choose not to be full-time gas suppliers because the cost of interruptible service plus alternative fuels are traditionally less expensive than year round non-interrupted gas service. In addition, **these customers seldom store adequate fuel in anticipation of the interruptions which occur annually but are of unpredictable time and duration.**

Coming, as they do, at the time of peak distillate oil demand, these large incremental loads disrupt the delivery system and can send oil commodity prices sky rocketing.

Another extraneous load is imposed on the oil distribution system when electric utilities decide to switch natural gas turbine generating units to distillate oils in cold weather. The industry estimates it will be relying more on these turbine peaking units in the future. The combustion turbines are used for peak shaving, unlike the base-load units that use heavy fuel oil, coal, or uranium. The combustion turbines generally operate on natural gas in the summer, but since natural gas is not available for power generation in the winter, they use distillate in the winter. Because the combustion turbines are relatively inefficient and expensive to operate, they are primarily used for peak-shaving purposes. However, because power supplies were tight in December and January, the electric utilities used their less-efficient turbines almost continuously. According to a Northeast Power Report article, "A number of utilities in the Northeast were forced to use a staggering amount of expensive fuel oil to fire peaking turbines during the deep freeze of December 1989, a Northeast Power Report spot survey shows. The survey indicates that the utilities far exceeded their own fuel use expectations, in some cases by more than 300%"[1] Because of this, Consolidated Edison Company of New York was buying distillate oil in the market every day to make electricity to send to Canada. Some comments by fuel buyers for utilities include, "We're buying oil like crazy...We're in the market every day."[2] and, "I was an animal going for every truck and barge load I could get. I was running out...Once the utilities kick in their combustion turbines it puts a tremendous strain on the same oil distribution terminals used by the fuel dealers."[3] (Attachments B & C).

PMAA believes that this massive unanticipated demand from utility customers with inadequate stand-by storage to cushion the effect, was the pressure point that drove the distillate oil market to its unprecedented price increases. We have heard from many petroleum wholesalers, suppliers, and retailers that they could have handled the increased demand from their traditional customers even with a thirty percent colder weather, but the enormous surge in demand by non-traditional users was the straw that broke the camel's back. In addition, PMAA strongly believes that as a matter of public policy, **the homeowner who uses oil to heat his home, the truck, bus, and airline users, plus anyone who depends upon using distillate oil all year round, should not have to subsidize the gas customer curtailed by the utility.** These gas and electric utilities should not be allowed to externalize their supply problems. In fact, some utilities deliberately took advantage of their interruptible customers to increase their profit margins. In a Brooklyn Union Gas Quarterly Report in January 1990, **the company proudly claims a financial benefit as a result of selling surplus gas to other utilities, failing to mention that they curtailed their own bargain rate customers during the same period.** "Primarily as a result of December's extrememly cold weather, firm sales of 40,080 MDTH for the quarter ending December 31, 1989 were 14.4% ahead of sales in the first quarter of last fiscal year." (Attachment D).

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[1] Northeast Power Report, "Utilities Report Drastic Increase in Oil Use, Price During Cold Snap", February 22, 1990.

[2] The Wall Street Journal, "Deep Chill Strains North's Energy Supply; Pipelines Limit Gas as Heating Oil Prices Rocket", December 22, 1989, A2.

[3] The Journal of Commerce, "Utilities' Needs Helped Fuel December's Oil Price Climb; Major Strain Put on System", February 8, 1990, 1A.

It should also be noted that utilities attempted to use the distillate price increases, as a marketing ploy to gain more marketshare in the heating market. The attached natural gas ads, (Attachment E and F) which appeared in the New York Times and other publications in December 1989 and January 1990, fail to address the reason why natural gas can be made to appear reliable, when, in fact, it is not. The utility transferred responsibility for essential fuel needs in the peak winter season to competing fuels. The distillate industry published an ad to set the record straight (Attachment G).

For these reasons, PMAA fully supports the requirement in S. 2177 that DOE conduct a study on the impacts of interruptible consumers on the winter 1989 distillate market. It is widely believed that these customers exerted a disproportionate influence on heating oil, diesel, and jet fuel prices during last winter's cold snap. If true, this signals a need to address the interruptible gas problem separately in seeking to mitigate against future disruptions in distillate oil markets. Yet to date, no serious attempts have been made to rectify this situation.

DOE's final report on the 1989-1990 distillate crisis did an excellent job of describing the market and analyzing descriptive information about what occurred. However, despite extensive examination of many facets of the distillate oil market and how various factors may have interacted to produce the unexpected price increases last winter, the analysis of the impact of interruptibles was incomplete. This is particularly curious, since DOE states in explaining the market's price behavior that not just demand but, significantly, the composition of demand, played an important role in the magnitude of the price jumps. More specifically, the report states that of 415 thousand barrels per day (MB/D) of unanticipated demand increases, 160 MB/D (or nearly 40 percent of the total) occurred in the industrial , commercial and utility sectors.

States DOE, "to the extent that these consumers were better able to absorb or pass on higher distillate prices, their substantial and unexpected presence in the December market may have significantly steepened the aggregate demand relationship between prices and total end-use sales...(resulting in) an acceleration in the bidding process for scare supplies, thereby inducing price overreaction to the cold weather and tight market conditions."[4] This fact was also confirmed by DOE Secretary James Watkins in a July 10 letter to PMAA on this issue (Attachment H).

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[4] EIA, An Analysis of Heating Fuel Market Behavior 1989-1990, June, 1990, p. 28.

Furthermore, DOE states that distillate demand from interruptible gas customers may have resulted in a demand increase of 141 MB/D or nearly 90 percent of the total jump in industrial, commercial and utility sector demand. Yet, here the analysis stops. DOE does not attempt to measure the impacts that the composition of demand had on prices, and data on interruptibles are deemed insufficient.

PMAA believes that if interruptible demand does, as DOE's latest analysis suggests, constitute a primary explanation for events in distillate oil markets last winter, then the entire issue definitely warrants more attention and remedial action. The purpose of the analysis should be not just to explain the past, but also to help in the formulation of policies which will guard against a recurrence in the future.

Specifically, PMAA believes that the examination should result in concrete recommendations restricting the ability of gas utilities to sign up new customers unless they can reasonably anticipate that there will be sufficient gas during periods of peak demand to meet those customers' needs. In the alternative, PMAA believes that a stand-by fuel reserve for the period utility anticipates curtailment should be required of all gas interruptible customers. We recommend the utility be held responsible for arranging for their storage as a condition to privileged interruptible status. The petroleum industry is ready and willing to participate in the development and implementation of such arrangements prior to peak winter periods.

If oil is going to continue to be the fuel everyone turns to as a last resort, the federal government must insure that oil will be there in the future to turn to. It must take steps now to prevent an uneven playing field which allows utilities to dump their peak load problems onto the distillate consumer. If steps are taken now, the distillate infrastructure can continue to be the fuel of "last resort" as it has traditionally been.

Inter-Agency Cooperation is Needed

Finally, PMAA believes that DOE, in consort with other agencies, should determine the regulatory restrictions which may hinder the free flow of product from refineries to the terminals during energy emergencies, and should set up mechanisms now to lift all such restrictions on a temporary basis which do not jeopardize human health and safety. As examples, in December, PMAA believes that the Maritime Administration and the Department of Energy should have cooperated in advance so that shippers received timely federal waivers from the Jones Act. Similarly, it would have been beneficial if transport and delivery drivers were able to get timely required waivers from federal and state limitations on working hours which required cooperation between the Department of

Transportation and DOE. One additional point as to future or potential problems -- EPA is in the process of establishing a low-sulfur diesel specificiation for on-road diesel use, to be effective in 1993. When this is adopted, it will, in effect, create a need for handling two separate distillate products (e.g. separate tanks, separate storage, separate trucks, pipeline segragation, etc.). This will further limit the present infrastructure from effectively meeting two separate and distinct demands for distillate. If this rule had been in effect in December 1989, it is my opinion that instead of experiencing only a higher-priced supply, we would have experienced **NO SUPPLY**, with all the consequences that a no supply scenario implies. Congress should require EPA to consider the market effect of their proposed rulemaking, which we have urged, without a satisfactory response from EPA.

Conclusion

PMAA appreciates this opportunity to express its views on this important issue and looks forward to working closely with those in government and the Congress to identify the most cost-effective solutions to particular energy emergencies.

Attachment A, Page 1 of 2

Form Approved
OMB Number: 1905-0174
Form Expires: 9/30/90

U.S. DEPARTMENT OF ENERGY
Energy Information Administration

EIA-782B: RESELLERS'/RETAILERS' MONTHLY PETROLEUM PRODUCT SALES REPORT

Schedule I

This report is mandatory under Public Law 93-275. Failure to comply may result in criminal fines, civil penalties and other sanctions as provided by law. For the provisions concerning the confidentiality of information submitted on this form, see Section VI of the Instructions. Public reporting burden for this collection of information is estimated to average 2.3 hours per response, including the time of reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Energy Information Administration, Office of Statistical Standards EI-73, Mail Station: 1H-023, 1000 Independence Ave. SW, Washington, DC 20585; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

PART I. IDENTIFICATION DATA

Complete items 1 thru 7 for new respondents and corrections to label only.

1. Name

2. Name of Contact Person

3. Contact's Telephone Number (☐☐☐) ☐☐☐ - ☐☐☐☐

4. Street/Box/RFD

5. City

6. State

7. Zip Code

For assistance in completing this form, call (800) 638-8812.

8. Reference Month

Mo	Yr

9. Type of Report *(Check one)*

(1) ☐ Original

(2) ☐ Revision, to Report Dated:

Mo	Da	Yr

10. The Number of States For Which You Are Reporting ☐☐

11. Date of This Report

Mo	Da	Yr

12. Type of Entity *(Check one)*

(1) ☐ Refiner/Gas Plant Operator

(2) ☐ Reseller

(3) ☐ Reseller/Retailer

(4) ☐ Retailer

13. Which of the following best describes this firm at the end of this reference month?

(1) ☐ In operation

(2) ☐ Temporarily or seasonally inactive

(3) ☐ Sold or leased to another . . . See the Specific Instructions

(4) ☐ Permanently ceased operation . . . See the Specific Instructions

PART II. CERTIFICATION

I certify that the information provided herein and appended hereto is true and accurate to the best of my knowledge.

14. Name

15. Title

16. Signature

17. Date of Signing

Title 18 USC 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious or fraudulent statements as to any matter within its jurisdiction.

☆ USGPO 1989 617-010/00757

EIA-782B (1-89)

OMB No.: 1905-017
Attachment A, Page 2 of 2 Expires: 9/30/[illegible]

EIA-782B:
RESELLER/RETAILERS' MONTHLY PETROLEUM PRODUCT SALES REPORT
Schedule II

IDENTIFICATION DATA

1. Firm Name
2. DOE Identification Number ☐☐☐☐☐☐☐☐☐☐
3. Page ____ of ____
4. Reference Month Mo ☐☐ Yr ☐☐
5. Type of Report *(Check one)*
(1) ☐ Original
(2) ☐ Revision, to Report Dated: Mo ☐☐ Da ☐☐ Yr ☐☐

6.1 Enter the abbreviation of the state for which this schedule is being filed. A separate Schedule II should be filed for each state. *(See Appendix A for state abbreviations.)* STATE ☐☐

6.2 Did your firm make sales of any of the products listed below in this state during the reference month?
(1) ☐ Yes . . . . complete the rest of this schedule as appropriate
(2) ☐ No . . . . submit this blank Schedule II to DOE

- Exclude from all calculations any *material* prior period adjustments. See General Instruction II.
- Exclude all *taxes* from sales data. See General Instruction III.
- Exclude all sales to refiners and gas plant operators.

PART III. MONTHLY STATE SALES OF FINISHED MOTOR GASOLINE *(Report volumes in* **thousands gal.***; prices in $0.000 per gal.)*

Line No.	Product *(Refer to definitions)* **Finished Motor Gasoline**	RETAIL SALES (Direct Sales to End-Users)				WHOLESALE SALES (Sales for Resale)	
		SALES THROUGH COMPANY-OPERATED RETAIL OUTLETS		SALES TO OTHER END-USERS			
		Volume *(a)*	Unit Price *(b)*	Volume *(c)*	Unit Price *(d)*	Volume *(e)*	Unit Price *(f)*
7	Leaded Regular						
8.1	Unleaded Regular						
8.2	Unleaded Midgrade						
9	Premium						

PART IV. MONTHLY STATE SALES OF NO. 2 DISTILLATES *(Report volumes in thousands gal.; prices in $0.000 per gal.)*

Line No.	Product *Refer to definitions)*	RETAIL SALES (Direct Sales to End-Users)										WHOLESALE SALES (Sales for Resale)	
		RESIDENTIAL SALES		COMMERCIAL/ INSTITUTIONAL SALES		INDUSTRIAL SALES		SALES THROUGH COMPANY-OPERATED RETAIL OUTLETS		SALES TO OTHER END-USERS (Includes Sales to Utilities and Agriculture)			
		Volume *(a)*	Unit Price *(b)*	Volume *(c)*	Unit Price *(d)*	Volume *(e)*	Unit Price *(f)*	Volume *(g)*	Unit Price *(h)*	Volume *(i)*	Unit Price *(j)*	Volume *(k)*	Unit Price *(l)*
10	No. 2 Diesel Fuel												
11	No. 2 Fuel Oil							▨	▨				

Note: Lines 12 to 16 are not applicable to this form.

PART V. MONTHLY STATE SALES OF RESIDUAL FUEL OIL *(Report volumes in thousands gal.; prices in $0.000 per gal.)*

Line No.	Product *(Refer to definitions)*	RETAIL SALES (Direct Sales to End-Users)		WHOLESALE SALES (Sales for Resale)	
		Volume *(a)*	Unit Price *(b)*	Volume *(c)*	Unit Price *(d)*
17	Residual Fuel Oil with 1 percent or less sulfur				
18	Residual Fuel Oil with greater than 1 percent sulfur				

☆ U.S.G.P.O. 1989 617-010/00758

EIA-782B (1-89)

A2 THE WALL STREET JOURNAL FRIDAY, DECEMBER 22, 1989

Attachment B

Deep Chill Strains North's Energy Supply

Pipelines Limit Gas as Heating Oil Prices Rocket

By ALLANNA SULLIVAN

Staff Reporter of THE WALL STREET JOURNAL

As an Arctic chill sweeps over much of the U.S., gas pipelines are cutting back deliveries to some customers, heating oil prices are skyrocketing and utilities are running their plants at a flat-out pace.

The gas pipelines are cutting back earlier and more sharply than usual to some "interruptible" customers in the Northeast, causing a wild scramble for oil as a replacement fuel.

The gas cutbacks reflect suppliers' efforts to maintain the flow to homes, hospitals and others who pay a premium for firm delivery commitments. More than 50% of the gas moving through U.S. pipelines is shipped on so-called interruptible contracts, usually to industrial customers or utilities that can, and are willing to, switch back and forth between gas and oil.

The problem is one of the coldest winters in years in much of the country. Demand was already at a peak for various grades of fuel oils—as was demand for electricity, some of which is generated with oil or gas. Now, oil supplies are dwindling, too, and prices are jumping.

With prices soaring at the end-user level, commodity traders yesterday continued to bid up oil-futures prices on the New York Mercantile Exchange as well. Heating oil for January delivery zoomed 4.05 cents a gallon in frenzied trading, pulling crude oil markets along.

Typically, interruptible customers in the Northeast and mid-Atlantic region lose their gas supply for at least several weeks of each winter. But this year the interruptions have come earlier than usual. "Almost every interruptible customer has probably been interrupted by this time," said John Zekoll, director of the gas division of New York Public Service Commission.

Tenneco Unit's Action

For instance earlier this week a unit of Tenneco Inc., one of two major suppliers to New England, suspended its interruptible service north of Kentucky for an indefinite period, citing the frigid weather and "heavier than anticipated" draw on storage reservoirs. And in recent days, interruptible service on Consolidated Natural Gas Co.'s pipeline in northern Pennsylvania and New York has fallen by almost half. That service will be further cut on Jan. 1, a company official said.

Some industrial complexes with interruptible pipeline contracts are able to get replacement gas from local utilities. But many, such as Bristol-Myers Squibb Co.'s facilities in upstate New York, and some utilities that had been operating on gas, have had to turn to oil just as shivering homeowners and other traditional users of oil increased their usage.

In recent days, supplies of home heating oil in at least six terminals in the Northeast have run dry. The outages were only temporary, and consumers aren't going without fuel. But the unexpected shortages illustrate the strain on the heavily populated Northeast's energy supply. Refiners have been forced to rapidly increase their output to satisfy the sudden higher demand, and suppliers hope that warmer weather in Europe may free up more fuel that could be shipped here.

Yesterday, however, oil traders and marketers grew concerned that refineries along the U.S. Gulf Coast might be damaged by the freezing weather that now is sweeping unusually far south. Those refineries make most of the fuel oil used by industry and homeowners. With supplies so tight already, "we're holding our breath," said Andrew Lebow, analyst for E.D. & F. Man International Futures Inc. Plus, the pressure to use heating oil as a substitute fuel may get worse. Propane, a source of supplemental heating for some homeowners, is in such short supply in some areas that sales are being allocated.

Ten-Cent Price Jump

Demand for home heating oil, or distillate, has been running at an additional 500,000 barrels a day, kicking up the daily appetite for that fuel to four million barrels, says Lawrence Goldstein of the New York-based Petroleum Industry Research Foundation. And the need for heavy-grade "residual" fuel, used primarily by industrial customers and utilities, has jumped by more than 300,000 barrels daily to about 1.3 million barrels, Mr. Goldstein says.

Prices have risen accordingly. Some New York homeowners report that the retail price they are paying for heating oil has already jumped by more than 10 cents a gallon since the end of last winter's heating season. Wholesale prices have climbed by more than 20 cents a gallon over the past six weeks, suggesting that homeowners will soon be digging even more deeply into their pockets.

Residual fuel is selling for more than $29 a barrel, industry sources say, up more than $10 during the same period. Natural gas prices have also soared.

Sharply higher electricity demand has helped skew the energy market. Many utilities throughout the Northeast have been running near capacity to supply heat and light to businesses and homeowners. Surplus capacity that existed only 10 years ago has been eaten up by the rapid economic growth of the last few years.

These utilities, which had been banking on Canadian power sources to feed their burgeoning grids, have gotten a rude surprise this winter. Several major Canadian utilities, dependent on hydroelectric power to generate electricity, have been unable to supply their own markets because of a drought. So they have been turning to the already strained U.S. utilities to "borrow" power.

Parts of New England almost plunged into a blackout Dec. 4 as the demand for power exceeded the capability of the utilities there to make electricity, according to William P. Sheperdson, an official of the New England Power Pool, based in West Springfield, Mass. The area got a last-minute reprieve when New York was able to lend some power to the New England grids. "Nothing is a question of economics anymore," said John Koehler, manager of the New York Power Pool. "It's a question of keeping the lights on at this point."

Because of the heavy draw on power, some utilities in the Northeast have fired up combustion turbines to supplement their output. Many of these turbines run on distillate fuel, which means some homeowners are now competing with huge utilities for energy.

Consolidated Edison Co. of New York has been running its turbines to crank out incremental power for days, said Mary Jane McCartney, assistant vice president for fuel supply at the huge New York utility. Typically, those turbines are kicked on for only one or two weeks in January or February.

"We're buying oil like crazy," she said. "We're in the market every day."

Consumer Spending Increased 0.7% In November Partly Due to Car Sales

By GLENN HALL

Staff Reporter of THE WALL STREET JOURNAL

WASHINGTON—The economy took a healthy step forward as consumer spending rose in November for the first time in

worried about their jobs and their futures," said Florence Skelly of the Daniel Yankelvich Group, which surveys consumers. "Even though there is no reces-

GM Plans to Boost

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Attachment C, Page 1 of 2

Front Page

THE JOURNAL OF COMMERCE, Thursday, February 8, 1990

Utilities' Needs Helped Fuel December's Oil Price Climb

Major Strain Put on System

By SAM GLASSER

Journal of Commerce Staff

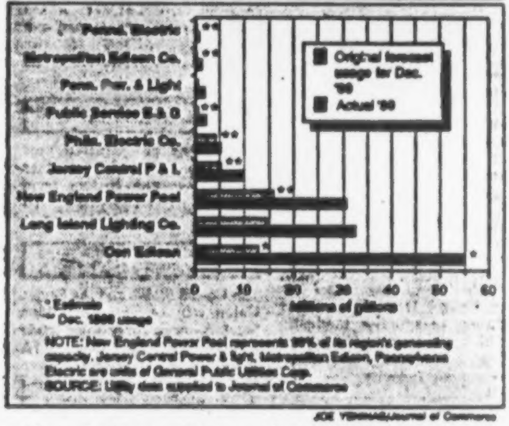
NEW YORK — December's unprecedented run-up of home heating oil prices in the Northeast was aggravated by an almost insatiable need for the fuel by the region's electric utilities which had to meet an extremely high demand for power.

The utilities' consumption of home heating oil, also known as distillate fuel oil or No. 2 fuel, put a major strain on the heating oil distribution system. If emerging trends in the utility industry continue, the problem is likely to get worse.

"I was an animal going for every truck and barge load I could get. I was running out," said the fuel buyer for a utility in the New York area.

This situation could easily be repeated given another bout of prolonged frigid weather. The power companies use distillate fuel oil to run their combustion turbine peaking units in the winter, and the industry estimates it will be relying more on these in the future.

Distillate Fuel Oil Consumption by Utilities In The Northeast



NOTE: New England Power Pool represents 99% of its region's generating capacity. Jersey Central Power & light, Metropolitan Edison, Pennsylvania Electric are units of General Public Utilities Corp.

SOURCE: Utility data supplied to Journal of Commerce

JOE [illegible]/Journal of Commerce

The combustion turbines are used for peak shaving, unlike the large base-load units that use heavy fuel oil, coal, or uranium. The combustion turbines generally operate on natural gas in the summer, but gas is not available for power generation in the winter.

Because the combustion turbines are are relatively inefficient and are expensive to operate, they are often only used for a few hours at a time. But because power supplies were tight throughout the region, the electric companies had to use the machines almost continuously to keep the lights on.

Ironically, sitting in the

SEE UTILITIES, PAGE 7B

– more –

-2-

Attachment C, Page 2 of 2

THE JOURNAL OF COMMERCE, Thursday, February 8, 1990

CONTINUED FROM PAGE 1A

midst of the fuel-short region are two completed nuclear plants that are not operating for political reasons, Shoreham on Long Island and Seabrook in New Hampshire.

So, while fuel oil marketers were vying with each other for supplies in a tumultuous market, they were also competing with the power companies who were voracious consumers, doubling and tripling their usual distillate fuel use for December.

"The impact on prices at the margin was enormous," said Larry Goldstein, senior economist at the Petroleum Industry Research Foundation, New York. The utilities "were very big, very visible and important buyers. Prices are secondary to a utility which needs to meet its kilowatt-hour requirements."

For example, Consolidated Edison Co. of New York estimates it used 42 million gallons more in December than it expected it would. On a daily basis, consumption was about double normal levels, although it quadrupled on some days.

Long Island Lighting Co., Hicksville, N.Y., saw distillate consumption increase by 9 million gallons over its forecast for the month. Lilco's service territory is also one of the most concentrated home heating oil markets in the country where about 80% of the homes use oil heat.

The New England Power Pool, a cooperative power dispatching group that represents virtually all of the region's generating capacity, increased distillate consumption by 14.8 million gallons over December 1988.

Other utilities that had greatly increased distillate fuel requirements include Pennsylvania Power & Light Co., Allentown, Pa.; Philadelphia Electric Co., Philadelphia; Public Service Electric & Gas Co., Newark, N.J., and the three operating units of General Public Utilities, Parsippany, N.J.

The mad dash for supplies by all buyers pushed wholesale barge-lot prices up 81% in New York Harbor during December, with most of the increases coming in the second half of the month. On Dec. 1, the average posted barge reseller price, in The Journal of Commerce daily price survey, was 64 cents a gallon. It was 90.4 cents by Dec. 11, and $1.16 by Dec. 29.

Increases of a similar magnitude were seen in other cities. In Boston, wholesale truckloads of heating oil went as high as $1.28 a gallon.

Retail prices soared, too, although many dealers said they didn't pass on the full extent of the wholesale increases. Dealers also experienced considerable difficulty obtaining supplies.

Distribution terminals routinely closed early or were dry for days at a time. The principal wholesalers in turn, said they were having problems obtaining deliveries by barge and ship.

"Once the utilities kick in their combustion turbines it puts a tremendous strain on the same oil distribution terminals used by the fuel dealers," a utility fuel buyer said. "At the same time you have high residential heating demand, high electricity demand, and demand from gas users whose supplies are interrupted."

"If Shoreham had been operating, prices wouldn't have risen as sharply as they did," said Robert Greenes, a veteran heating oil dealer who is now acting executive of the New York Oil Heating Association.

It's hard to say precisely how much heating oil the plants would have displaced, and it's not a sure bet that they would have been running every day in December. But to make up Shoreham's 809 megawatts of capacity with combustion turbines takes about 2 million gallons a day. To equal Seabrook's 1,150 Mw takes 2.7 million gallons daily.

"It's probably almost a one to one displacement," said an engineer with the New York Power Pool who asked not to be named.

The New York and New Engla pools operate on the principal known as economic dispatch; power from the cheapest fuel sources are dispatched first.

"Nuclear displaces coal, coal displaces residual fuel oil, resid displaces distillate," the source said.

Shoreham is unlikely to operate for years, if ever, because the state and Lilco reached an agreement to shut the licensed plant before it ever went into commercial operation. Seabrook is awaiting a full power license.

Yet utilities could be taking an even bigger bite out of home heating oil supplies in the future. The North American Electric Reliability Council, the utility industry's planning and forecasting group, estimated last October that utility distillate consumption in New England will increase from 50.4 million gallons in 1990 to 105 million gallons in 1993 and 155.4 million gallons in 1998.

In New York, distillate use is estimated to decline from 63 million gallons in 1990 to 12.7 milli in 1993 rising again to 20.7 millio gallons by 1998. Both forecasts assume that Shoreham and Seabrook would be operating.

Attachment D, Page 1 of 4

BROOKLYN UNION GAS
FIRST QUARTER REPORT
1990

Natural Gas
Is the Fuel
Best Suited
to Meet the
Environmental
Needs of the
1990's.

Brooklyn Union Gas

Attachment D, Page 2 of 4

To Our Shareholders:

February 1, 1990

DIVIDEND INCREASE

On December 20, 1989, the Board of Directors approved an increase in the quarterly dividend to 46 cents per share from 44½ cents per share. This is the 14th consecutive year in which the dividend has been increased and the 165th consecutive quarter in which a common dividend has been paid. The annual dividend rate is now $1.84 per share. The new dividend is payable on February 1, 1990 to shareholders of record on January 3, 1990.

1989 DIVIDEND PAYMENTS

A statement of investment activity, including reinvested dividends for the last quarter, is enclosed for participants in the Automatic Dividend Reinvestment and Stock Purchase Plan.

The total amount of dividends paid during the calendar year was indicated on Form 1099, mailed to shareholders in January 1990.

EARNINGS

Consolidated income available for common stock for the first quarter of fiscal 1990 was $29.5 million, or $1.22 per share, compared to $30.2 million, or $1.28 per share, for the first quarter of last year. Earnings for the twelve months ended December 31, 1989 were $59.6 million, or $2.48 per share, compared to $63 million, or $2.70 per share, for the twelve months ended December 31, 1988.

Comparative quarterly and twelve-month earnings generally reflect the benefit of gas-sales growth, which was more than offset by higher operating and interest expenses. Moreover, the rate of return currently allowed on utility common equity is 12.1%, compared to 12.9%, the rate allowed and earned in fiscal 1989.

Earnings per share amounts also reflect the higher number of shares outstanding at December 31, 1989.

UTILITY NEWS

Sales. The last month of the 1980's was the coldest December in New York City since 1917, with a total of 1,205 degree days, compared to 900 degree days for a normal December. Brooklyn Union's gas sendout of 22,474 MDTH was its largest December total ever.

Primarily as a result of December's extremely cold weather, firm sales of 40,080 MDTH for the quarter ending December 31, 1989 were 14.4% ahead of sales in the first quarter of last fiscal year.

In accordance with the Weather Normalization Adjustment in Brooklyn Union's tariff, the company will refund to its firm customers the benefit of net revenues (revenues less gas costs) from firm gas sales in excess of sales that would have been realized during normal weather. Conversely, weather normalization protects the company from the adverse financial effect of warm weather during the heating season. This equitable arrangement contributes to earnings stability.

Gas Supply. The company's strong gas-supply position proved more than adequate for meeting customers' needs during the December cold spell. Long-term supply contracts for Canadian gas and direct purchase of domestic gas have been reinforced by additional winter delivery service through the PennEast and Associated PennEast Customer projects, which were initiated by Brooklyn Union and began supplementing peak supply in 1988, with additional capacity added in the fall of 1989.

Brooklyn Union's System Control Center, equipped with a state-of-the-art Supervisory Control and Data Acquisition (SCADA) System, efficiently handled pressing demands for gas sendout during a severely cold December.

Brooklyn Union's foresight in securing excellent supply and storage arrangements enabled it to fulfill requests f[illegible] gas during this demanding month from thr[illegible]ther utilities and two large cogeneration facilities. While the ability to assist other parties is gratifying to the company and provides a financial benefit to its customers, these requests emphasize the need for additional pipeline capacity to supplement gas supply to the Northeast—and, specifically, the need to expedite regulatory approvals for the Iroquois Gas Transmission System, whose delivery of Canadian gas will "backfeed" local pipeline facilities and supply the region with energy security well into the future.

A January decision by the Department of Energy approving the import of Canadian gas for Iroquois through Alberta Northeast Gas, Ltd. stated that these "import arrangements will provide long-term, reliable supplies of needed natural gas on market-responsive terms."

Cover: Continuing the theme developed in the 1989 annual report, quarterly reports during 1990 will include information about the environmental benefits of natural gas and the marketing opportunities these present to Brooklyn Union and the gas industry. This quarter's cover depicts the Unisphere at Flushing Meadow Park in Queens, which, set against a blue sky on a clear winter day, represents the universal effort to develop a more healthy atmosphere for all mankind.

Rate Matters. In November 1989, the company filed a rate application effectively seeking approximately $52.3 million in additional revenues for fiscal 1991. The application reflects increases in financing costs largely due to a higher common-equity component of the company's capitalization and includes a requested return on common equity of 13.4%.

Executive Changes. The Board of Directors has named Elwin S. Larson chairman and chief executive officer of Brooklyn Union and Robert B. Catell president and chief operating officer, effective January 1, 1990. Mr. Larson held the titles of president and chief executive officer and Mr. Catell had been executive vice president and chief operating officer since June 1986.

Mr. Larson, a New York State licensed professional engineer, joined Brooklyn Union in 1947 and has been an officer of the company since 1966. He is a board member of the American Gas Association and president and chairman of the board of the Natural Gas Vehicle Coalition. His many business, civic and charitable associations have included the chairmanships of the New York Board of Trade and the Brooklyn Chapter of the American Cancer Society.

Mr. Catell, a Brooklyn native and also a New York State licensed professional engineer, has served with Brooklyn Union since 1958 and became an officer of the company in 1974. He is chairman of Boundary Gas, Inc. and Alberta Northeast Gas, Ltd.—groups formed to import natural gas from Canada—and, among other positions, is a trustee of Brooklyn Law School, Brooklyn Botanic Garden, Independence Savings Bank and the Institute of Gas Technology.

SUBSIDIARY NEWS

Gas Exploration and Production. Fuel Resources Inc., Brooklyn Union's wholly owned subsidiary involved in gas exploration, production and interstate marketing, continues to expand and integrate its activities.

Brooklyn Union Exploration Company (BUGEXCO), a subsidiary of Fuel Resources Inc., is aggressively pursuing exploration and development opportunities in the Texas and Louisiana coastal areas, primarily in the Federal Outer Continental Shelf of the Gulf of Mexico. Its Matagorda Island prospect, off the coast of Texas, began initial production in January 1990, with two multi-well platforms coming on line. During the remainder of this year, production at this location should increase dramatically, to as much as 150 million cubic feet of gas per day, as two additional multi-well platforms begin production. BUGEXCO is seeking to sell the gas produced from these wells through long-term contracts.

With the recent acquisition of 12 offshore Texas blocks, BUGEXCO now has approximately 212,000 gross offshore acres under lease.

Propane Distribution. Star Energy Inc., a wholly owned subsidiary of Brooklyn Union, owns 45% of Star Gas Corporation, a major interstate distributor of propane.

As part of its expansion program, Star Gas recently acquired Tri-County Gas and Appliances Company, a propane-distribution company in Georgia, which will be integrated into existing operations in that state. Star Gas's total sales are now in excess of 170 million gallons a year. Propane sales were high in November and December due to crop-drying needs and unusually cold weather.

The skill and dedication of Star Gas Corporation and Fuel Resources Inc. employees helped ensure that customers were well served despite tight supplies and severe weather during December.

Elwin S. Larson
Chairman and Chief
Executive Officer

Consolidated Summary of Earnings (Thousands of Dollars)

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	1989	1988	1989	1988
Operating Revenues	$334,432	$297,761	$1,005,858	$927,564
Cost of Gas	157,497	129,449	410,514	374,497
Net Revenues	176,935	168,312	595,344	553,067
Operating and Maintenance Expense	78,964	73,645	310,493	285,335
Depreciation and Depletion	9,091	8,730	35,897	32,731
General Taxes	36,785	32,621	125,741	111,174
Federal Income Tax	13,205	14,428	25,212	28,555
Operating Income	38,890	38,888	98,001	95,272
Other Income	3,217	2,514	9,503	11,355
Income Before Interest Charges	42,107	41,402	107,504	106,627
Interest Charges	11,606	10,234	43,908	39,530
Net Income	30,501	31,168	63,596	67,097
Dividends on Preferred Stock	984	1,018	3,988	4,139
Income Available for Common Stock	$ 29,517	$ 30,150	$ 59,608	$ 62,958
Per Share of Common Stock	$ 1.22	$ 1.28	$ 2.48	$ 2.70

This interim summary of earnings should not be taken as a prediction for the fiscal year. Our business is influenced by seasonal weather conditions and the timing of approved base tariff rate changes.

Other Information				
Capital Expenditures	$ 32,024	$ 38,353	$ 152,142	$135,242
Firm Gas Sales (10,000 therms or MDTH)	40,080	35,036	117,509	112,576
Degree Days	1,994	1,740	4,972	4,954
Colder than Normal (%)	20.2	4.9	1.5	.6
Average Common Shares (000)	24,281	23,580	24,035	23,311

Condensed Consolidated Balance Sheet (Thousands of Dollars)

	December 31, 1989	1988
Assets		
Property	$1,309,344	$1,236,205
Accumulated Depreciation	(301,732)	(322,668)
	1,007,612	913,537
Investments	34,207	17,308
Current Assets	485,552	389,214
Deferred Charges	33,395	31,458
Total	$1,560,766	$1,351,517
Capitalization and Liabilities		
Common Shareholders' Equity	$ 507,414	$ 473,803
Preferred Stock, Redeemable	46,324	47,934
Long-term Debt	556,214	463,216
	1,109,952	984,953
Current Liabilities	282,989	212,652
Deferred Credits	167,825	153,912
Total	$1,560,766	$1,351,517

Attachment E

Page 9 HOME REPORTER AND SUNSET NEWS January 26, 1990

GAS HEAT IS BORING:

It's price-stable
It's plentiful
It's dependable
It's so predictable.

YOU WANT SURPRISES TRY OIL HEAT.

This past December, when oil prices were going through the roof, the price of clean gas energy from Brooklyn Union Gas was predictably stable. This past month, when fuel oil availability and delivery were nightmares for many, Brooklyn Union Gas customers slept soundly. And when comfort and warmth were doubly important (remember those below-zero wind chill factors?) a lot of home and building owners decided boring is best. They switched to clean gas heat. It's not easy to be so reassuringly boring. We work very hard at it. If you like what that means and if you don't want any more surprises, switch to clean gas heat. Call your licensed plumber or call us, Brooklyn Union, at (718) 403-3200 and say you want boring gas heat. We won't be surprised.

Brooklyn Union Gas Naturally

The Trentonian Friday, January 12, 1990

Attachment F

Had Enough?

Heating oil rises 22¢ in 9 days
Shortage on horizon?
Fuel oil prices in Jersey ... $1.27 a gallon
COLD FACTS
Heating oil prices up 20% in last 9 days

Switch To Gas Heat And Avoid The Headlines.

Again, with cold weather, heating oil makes news as spiraling costs push oil prices to record highs. Haven't you had enough of this?

Now's the time to convert. Regardless of the weather, natural gas prices remain stable.

And natural gas is not only cheaper than oil, it's cleaner, more efficient and more dependable, too. Convert now. The money you save with economical gas heat will help pay for the conversion.

Send for our free booklet that tells you how to convert quickly and easily. Or better yet, don't wait for the booklet. Call PSE&G now. It's the modern alternative.

For Faster Action Call: 1-800-223-0509, Ext. 990

☐ I'm interested in converting to modern gas heat and reducing my heating bills. Please call me.
☐ Send me your free literature.

Name______________________________________
Address______________________________________
City____________________________Zip___________
Business Phone________________Home Phone______________
My oil heating equipment is approximately _____ years old

Mail to: PSE&G Marketing Services
Dept. 11A
P.O. Box 570, Newark, NJ 07101-8956

TR 1-90

PSE&G Public Service Electric and Gas Company

Attachment G

Regal Paper Products
Milford, NJ
Orange Hospital Center
Orange, NJ
Hartel Corporation
Hoboken, NJ
New Jersey Turnpike Auth.
Newark, NJ
Greater New York Box Co.
Clifton, NJ
Clara Maass
Belleville, NJ
E.R. Squibb
New Brunswick, NJ
Atlantic City Hall
Atlantic City, NJ
Maxwell House Coffee
Nutley, NJ
Curtiss Wright
Fairfield, NJ
Merck & Co., Inc.
Rahway, NJ
Rutgers University
New Brunswick, NJ
Passaic General Hospital
Paterson, NJ
Palisades General Hospital
North Bergen, NJ
Seton Hall University
Newark, NJ
BTF Corporation
East Rutherford, NJ
Anheuser-Busch Brewery
Newark, NJ
Lipton Tea
Flemington, NJ
Exxon Research
Annandale, NJ
U.S. Baird Co. Mfg.
Stratford, CT
St. Joseph's Manor School
Trumbull, CT
Unifirst Uniform Company
Stratford, CT
General Re-insurance Offices
Stamford, CT
316 West 93rd Street
New York, NY
200 East 24th Street
New York, NY
1005 Esplanade Avenue
Bronx, NY
55 Lenox Road
150
Brooklyn, NY
229 East 12th St
New York, NY

71-11 Yellowstone Blvd.
Queens, NY
55-05 Woodside Avenue
Queens, NY
69-40 108th Street
Queens, NY
67-67 Burns Street
Queens, NY
69-39 Yellowstone Blvd.
Queens, NY
69-40 108th Street
Queens, NY
110-20 71st Avenue
Queens, NY
345 East 80th Street
New York, NY
301 East 87th Street
New York, NY
1818 Ocean Avenue
Brooklyn, NY
233/241 East 46th Street
New York, NY
84-31 Van Wyck Expwy.
Queens, NY
69-40 Yellowstone Blvd.
Queens, NY
26-45 9th Street
Queens, NY
1740 Ocean Avenue
Brooklyn, NY
345 West 58th Street
New York, NY
30 West 60th Street
New York, NY
1500/02 Hone Avenue
Bronx, NY
Roosevelt Island
Housing Complex, NY, NY
161 Lexington Avenue
New York, NY

Brooklyn Navy Yard
Brooklyn, NY
1880 Pacific Street
Brooklyn, NY
1257 Loring Avenue
Brooklyn, NY
2946 W. 23rd Street
Brooklyn, NY
2832 W. 23rd Street
Brooklyn, NY
2189 Pitkin Avenue
Brooklyn, NY
5413 7th Avenue
Brooklyn, NY
Kennedy Airport
Main Hangar, Flushing, NY
83-33 118th Street
Queens, NY
19-10 Parsons Blvd.
Queens, NY
16-66 Bell Blvd.
Queens, NY
16-70 Bell Blvd.
Queens, NY
139-81 35th Avenue
Queens, NY
St. Therese School
Brooklyn, NY
St. Joseph High School
Brooklyn, NY
2525 Kings Highway
Brooklyn, NY
395 Flatbush Avenue
Brooklyn, NY
1300 Union Turnpike
Queens, NY
131-33 Avery Avenue
Queens, NY
155-17 Sanford Avenue
Queens, NY

142-15 Franklin Avenue
Queens, NY
29-06 21st Street
Queens, NY
118-35 Metropolitan Ave.
Queens, NY
35-21 79th Street
Queens, NY
41-08 43rd Street
Queens, NY
133 Smith Street
Brooklyn, NY
8502 Fort Hamilton Pkwy.
Brooklyn, NY
81-26 150th St.
Queens, NY
711 Seagirt Avenue
Brooklyn, NY
1365 West 7th Street
Brooklyn, NY
2055 Ocean Avenue
Brooklyn, NY
108-18 Queens Blvd.
Queens, NY
72-15 41st Avenue
Queens, NY
146-40 89th Avenue
Queens, NY
154 Avenue P
Brooklyn, NY
2001-2003 Avenue J
Brooklyn, NY
301 Oriental Boulevard
Brooklyn, NY
135 Avenue P
Brooklyn, NY
1429 Carroll Street
Brooklyn, NY
99 Logan Street
Brooklyn, NY

36-47 64th Street
Queens, NY
48-16 47th Street
Queens, NY
48-08 47th Street
Queens, NY
48-45 46th Street
Queens, NY
48-05 46th Street
Queens, NY
139-10 34th Avenue
Queens, NY
82-09 182nd Street
Queens, NY
405 Williams Avenue
Brooklyn, NY
160 Henry Street
Brooklyn, NY
St. Ann's School
Brooklyn, NY
47 Plaza Street
Brooklyn, NY
100 Avenue P
Brooklyn, NY
7200 Ridge Blvd.
Brooklyn, NY
1245 Avenue X
Brooklyn, NY
499 Ocean Avenue
Brooklyn, NY
2195 22nd Street
Brooklyn, NY
304 North 7th Street
Brooklyn, NY
1532 Ocean Avenue
Brooklyn, NY
1018 Eastern Parkway
Brooklyn, NY
AT&T Technologies Inc.
Bridgewater, NJ

Elwood Schools
Elwood, NY
Coachem Inc. Factory
Bayonne, NJ
Chilton Memorial Pla
Pompton Plains, NJ
Colgate Palmolive Co
Piscataway, NJ
Comsewogue Schools
Port Jefferson Station
Brentwood Schools
Brentwood, NY
Brookdale Hospital
Brooklyn, NY
Brooklyn Hospital
Brooklyn, NY
Mattituck Patchogue S
Mattituck, NY
Methodist Hospital
Brooklyn, NY
Bellmore Merrick Cent
North Merrick, NY
Best Foods
Bayonne, NJ
Beth Abraham Hospita
Bronx, NY
Bethpage Schools
Bethpage, NY
Hill Refrigeration Facto
Trenton, NJ
Huntington Schools
Huntington, NY
St. Barnabas Hospital
Livingston, NJ
Hackensack Hospital
Hackensack, NJ
Avon Products
Suffern, NY
Carlton Towers Apts
Caldwell, NJ
Hilton Davis
Newark, NJ

JUST A FEW OF THE PLACES CUT OFF BY "DEPENDABLE" GAS HEAT.

If it wasn't so sad, you'd have to laugh. Imagine the nerve of those gas companies that claim gas heat is dependable.

Every winter, thousands of places, both commercial and residential, have their gas heat shut off because the gas companies just can't keep up. And every winter, oil heat dealers come to the rescue. Because heating oil is plentiful. Dependable. And, oh yes, safe.

Now we won't deny that prices went up this past December. Brutally cold weather combined with the gas companies' inability to provide sufficient heat created a surge in demand for oil. This caused a temporary price hike.

But prices are returning to normal. And reasonable prices, along with plenty of product and outstanding service, assure you that as long as you're an oil heat customer, you'll never be left out in the cold.

OIL HEAT

IT'S MORE THAN JUST HOT AIR.

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Attachment H, Page 1 of 2

The Secretary of Energy
Washington, DC 20585

PMAA
RECEIVED
JUL 13 1990

July 10, 1990

Mr. Phillip R. Chisholm
Executive Vice President
Petroleum Marketers Association of America
1120 Vermont Avenue, N.W.
Washington, D.C. 20005

Dear Mr. Chisholm:

Thank you for your letter of March 15, 1990, raising a number of issues which have been the subject of intense discussion both within the Department of Energy and with Congress. The interruptible contracts which you mention are not a new facet of the market but in fact have been an important part of maintaining lower natural gas prices for consumers in many parts of the country. Nevertheless, the events of last December and January did have a significant impact on many individuals and business concerns.

The type of detailed study you suggest regarding natural gas interruptible contracts and their impact on the heating oil market would require a substantial new data collection effort. This would entail first asking gas distribution companies for lists of those customers which were interrupted and then asking those customers to determine what alternate fuels were used and the sources thereof, i.e., inventory on site, contracts in place, spot-market, etc., in order to determine the impact on the fuel oil market. The Energy Information Administration (EIA) has estimated that such an effort would cost approximately $850,000 and require 18 to 24 months to complete.

The Energy Information Administration recently provided you a copy of its service report An Analysis of Heating Fuel Market Behavior 1989-1990 (additional copy enclosed). This report provides a comprehensive review of this past winter's events and related impacts on energy markets. In an overall market of some 3.2 million barrels per day, EIA estimates that the impact of interruptible contracts on the December 1989 heating oil market was at most 141 thousand barrels per day, but probably less, based on the total unanticipated demand for the electric utility, commercial/institutional, and industrial sectors. Many of the affected users had little choice but to compete for available

Attachment H, Page 2 of 2

petroleum supplies at high prices. To the extent that these users were better able to absorb, or pass on, higher distillate prices, their substantial and unexpected presence in the December market probably intensified the bidding process for scarce supplies. It should be noted that interruptible contracts generally tend to reduce petroleum demand overall, thereby usually lowering distillate prices for all class of end-use customers.

The requirements for minimum distillate reserves for commercial and industrial customers with large interruptible contracts is an issue that is being actively investigated by some state agencies and by members of Congress. There are no federal regulations which pertain to this area, so this is the appropriate arena for such discussions.

This past winter has clearly demonstrated the complexities and interrelationships which exist in today's energy markets. Your interest is genuinely appreciated.

Sincerely,

James D. Watkins
Admiral, U. S. Navy (Retired)

Enclosure

Senator **Wirth**. Thank you very much, Mr. Greenes.

Just in summary I would like to go down. It seems to me there are two central provisions of the bill which we are here to review. One is the data collection and the other is the inventory requirement, is that not correct? I mean, these are the two major themes to the legislation?

Mr. **Greenes**. I would suggest that interruptible gas study is just as important.

Senator **Wirth**. And having the interruptible gas study, is that right, those three elements, then, of the legislation?

Mr. **Greenes**. Yes.

Senator **Wirth**. Well, Mr. Greenes, you have made very clear your position on those three elements. Maybe we could just go right down the table and have each of you summarize your views of the legislation. We all tend to get off on a variety of other tangents. Everybody has a view on what happened and why.

The question is—what we are focused on is this piece of legislation.

Mr. Lichtblau, if you want to comment, just give us your very quick view on the data, the inventory requirement and the interruptible study provision.

Mr. **Lichtblau**. Well, I think the data collection is not necessary——

Senator **Wirth**. It is already out there.

Mr. **Lichtblau**. They have that already, that is already done at the States. Maybe some of the States should be encouraged to do more and the DOE should be encouraged. But it does not require legislation. Inventory collection, well it is the same thing. We already have the information. And if there is any minimum inventory level put out by the Government, the problem is, will that inventory level just be a recommendation?

It is very unlikely, because there is going to be a bias, because the DOE, if it has to make these recommendations, is likely to put in a higher inventory level than the industry would. Because it wants to be absolutely safe that there is no choice.

Senator **Wirth**. So you would not support the inventory requirement?

Mr. **Lichtblau**. No, I would not.

Senator **Wirth**. And how about the interruptible study provision?

Mr. **Lichtblau**. I think that is the one thing I would support. I think a study of interruptible gas supplies is desirable, and we do not know enough about it. And DOE could do some very good work by providing the industry and the Congress with a thorough study on all aspects of this, because this is continuously being discussed.

Senator **Wirth**. Mr. Gartman?

Mr. **Gartman**. The data collection piece of this, at least as it relates to the natural gas industry, I view as unnecessary. The gas business is already a very closely regulated business, both at a Federal level as well as a State level. There is very close review of inventory levels and supply plans of gas companies already. And I think those are more than adequate to meet the purposes of concern here as far as natural gas is concerned.

As far as the DOE study of interruptible gas use and effect on oil prices, I also view that as unnecessary. You listened carefully to the testimony of EIA prior in this hearing, and if I remember the figure properly, as stated on the absolute outside, the impact of interruptible gas use was 140,000 barrels a day of distillate oil. And that included two factors, and roughly, maybe, if you undertake a guess, half and half was due to normal increase in oil usage. The other half may have been due to interruptible use.

It seems to me to try to get any greater precision than that is not really necessary, because the conclusion, regardless of where that number comes, whether it is 70,000 or 60,000 or 80,000, is that the gas does not have a significant affect on the oil situation. So I view that part as unnecessary, too.

Senator WIRTH. And how about the inventory requirement?

Mr. GARTMAN. The inventory requirement as it relates to gas, I think, is already being done as far as State utility commission reviews of natural gas plans and inventory levels already. So as far as the gas industry goes, this is already being done to a very great extent on a local level by State utility commissions.

Mr. GUINN. We certainly support the data element and certainly support it being legislated. I think these kinds of gentleman's agreements sometimes never get the dollars they need to happen. And I do not think the data is there that we need.

With regard to the interruptible gas study, my thought is that the effort—there should be a study, but I would expand it to include certainly the amount of heating oil that is used to make electricity and the seasonal use of that. I think that at least the work that we have done in New York, that that is certainly a significant problem.

With regard to the minimums, my thought is that it is much more of a risk assessment. It would seem to me a very logical thing for the Federal Government to say at this level of inventory with this kind of a winter approaching, if it was a normal winter, no problem. If it is a winter that is 10 percent colder, there is a problem, and 20 percent colder, my God. I think of something that you said, Chairman, earlier—I think that kind of a risk assessment is something we should expect.

With regard to mandating a level, I am not sure about that. In my testimony I made the point that RPR would be a very useful element to have in case there were a real problem.

Senator WIRTH. Mr. Langley?

Mr. LANGLEY. As far as the fuel process and inventories portion of it goes, I believe like others, I think most of the information that is being requested here is currently available from alternative sources. And I do not see the need to legislate, having the Department of Energy or the Energy Information Agency collect and publish that information.

I am very strongly opposed to the provision about recommending adequate inventory levels. I think that is something that is going to create considerable problems throughout the industry, and it just opens the door for the Government to get into another activity of the private enterprise system that the Government does not need to be in.

As far as the interruptible natural gas contracts, I would have to defer to Mr. Gartman or someone of his stature. I do not know enough about what the current reporting on the natural gas side of the business is, so it is just not appropriate for me to comment on that.

Senator WIRTH. All right. Well, I thank you very much. We appreciate you all being here. Your statements, again, will be included in full in the record. We would appreciate it—the record will be open—we would appreciate any comments you might have on the announcement made earlier today by the Energy Information Agency and how adequate you think that is.

Again, thank you all very much for coming and we look forward to working with you in the future. We appreciate it.

[Whereupon, at 4:05 p.m., the hearing adjourned.]

APPENDIX

Additional Material Submitted for the Record

July 30, 1990

Hon. Timothy E. Wirth, Chairman
Energy Regulation and Conservation Subcommittee
Energy and Natural Resources Committee
United States Senate
Room SH 212
Washington, D.C. 20510

RE: Hearing of July 26, 1990 on S. 2177

Dear Chairman Wirth:

On behalf of the American Gas Association (A.G.A.), I am writing you to express our opposition to S. 2177, which is pending for consideration before your Subcommittee on Energy Regulation and Conservation. This bill would impose burdensome and unnecessary reporting requirements on the natural gas industry and would require the Department of Energy's Energy Information Administration to perform an extensive annual survey on our industry, despite the fact that we performed efficiently and effectively in the face of one of the coldest Decembers on record.

The Gas Industry's Performance in December 1989

S. 2177 is based on several false assumptions about our industry, and we welcome this opportunity to rebut them for the hearing record. First, the bill is based on the assumption that the natural gas industry does not prepare adequately for winter demand peaks. On the contrary, our industry performed very well in December 1989, despite the fact that we had to draw more heavily than expected on our normal seasonal storage capabilities, made heavy reliance on LNG and propane-air as supplemental supply sources and had a number of producers unable to deliver contracted for volumes due to unprecedented well shut-ins, particularly in the offshore producing fields. These supply disruptions were temporary and, although of an unusual nature, did not cause our residential customers any undue hardship, in contrast to the price impacts experienced by residential fuel oil customers.

Given the favorable data on natural gas supply and the actions taken by our industry to ensure that gas is available at times of need, we must also point out that our industry made heroic efforts in December, 1989 that enabled us to avoid the types of supply disruptions that characterized the disappointing performance of the oil industry in the fuel oil dependent Northeast. A.G.A. data comparing natural gas deliveries to industrial and electric generation customers in the Northeast in December 1988 with those for December 1989 show that more gas was delivered in December 1989 (18.665 Mcf versus 15.338 Mcf). (See Table 1 attached.)

Use of Interruptible Contracts in Seasonal Demand Peaks

The second false assumption in the bill is that there is something questionable about one of the methods our industry has utilized for many years as a seasonal load balancing technique: interruptible rates for certain industrial customers. In fact, these customers pay a reduced rate for natural gas service with the explicit understanding, memorialized in the contract of service, that their gas service will be interrupted during periods of peak demand. We make no secret of these arrangements. Quite the contrary: state regulatory authorities, which approve all rates and contractual arrangements such as these, require local distribution companies (LDCs) to monitor supply carefully so that gas service to residential and small commercial customers is not compromised. Thus, the fact that our industry interrupted customers who had paid for interruptible service should be viewed as evidence of our industry's prudence in assuring that adequate supplies will be available for our residential and small commercial customers, who cannot readily secure alternate sources of heating during winter extremes.

Impact of Industrial/Electric Generation Interruptions on Residential Fuel Oil Customers

Some critics of our industry have alleged that these interruptible contracts were responsible for causing dramatic price increases for home heating oil, or distillate, from residential customers and contributing to an extreme price spike for these customers. For a number of reasons, nothing could be further from the truth. Our interruptible dual-fuel customers generally switch from natural gas to heavier residual oil rather than distillate, which is used for home heating. This is borne out by the attached A.G.A. study, Energy Analysis: Fuel Switching Survey - 1989/1990, which clearly shows that switching between natural gas and distillate oil was relatively low. In 1989, our survey shows that a total of 2 Bcf of industrial load switched from distillate to natural gas. Moreover, A.G.A. data on December 1989 interruptible contracts for six Northeast LDCs shows that the alternate fuel for most dual-fuel customers was overwhelmingly either No. 6 or No. 4 fuel oil. Very little distillate was used by these dual-fuel customers. (See Attached Table 2).

Another aspect of the A.G.A. Survey that should be noted is that it supports the contention that the industrial and electric utility markets are highly fuel-switchable and, thus, are not likely to be adversely affected by any problems of pipeline deliverability. According to the Survey, "Both qualitative and quantitative responses to the survey suggest that the dual-fuel capability of the vast majority of industrial customers has not deteriorated, but remained fairly constant. The cold weather in December did not reveal any systematic lapse in maintenance of oil-burning equipment among interruptible customers, who must maintain this capability in order to qualify for lower gas rates relative to firm contracts."

Natural Gas Supply and Old Myths that Die Hard

The issue of natural gas deliverability, as contrasted with the issue of natural gas supply, must be addressed at this juncture, since there are always some naysayers who try to use service interruptions to industrial customers as an indicator of supply shortages. Again, this is an old misconception that is dying in the face of recent studies showing that there are adequate supplies of natural gas to last until well into the Twenty-first Century, using conventional sources alone. For example, the North American natural gas resource base can continue to supply at least 20 - 25 percent of our nation's total energy through the year 2010, under a variety of price scenarios. Although the natural gas production surplus (i.e., the "bubble") is essentially gone, there is no indication at this time that we are facing any kind of supply shortage. In fact, a balance of supply and demand will occur. This is because possible declines in wellhead deliverability are more likely to be offset by increases in storage capability, making it possible for the industry to meet even sudden, sharp peak demands for natural gas. Furthermore, even if demand increases on an annual (rather than peak) basis, there are four important gas supply categories that could be brought in to production quickly -- generally in less than 12 months, with full regulatory support. These are: currently nonproducing reserves; Canadian gas; accelerated infill drilling; and LNG.

Natural Gas Storage

We are already seeing as increased emphasis on natural gas storage, by LDCs and pipelines, as a means of balancing daily energy supplies with widely fluctuating seasonal, daily and hourly requirements. To illustrate the increasing importance of natural gas storage, we are attaching two A.G.A. studies that document the importance of storage to our industry. The first study, Survey of Underground Gas Storage Facilities in the United States and Canada, is based upon data drawn from 92 companies in the United States and Canada. Published in 1988, the Survey is the most comprehensive compilation of data on natural gas storage available. All gas volumes are reported as of December 31, 1987. The other study, Engineering Technical Note: Underground Storage of Gas in the U.S. and Canada - 1989 Data, is an update of the original study. It was prepared from data furnished by 80 companies in the United States and Canada. Later data show that, as of January, 1990, gas storage send-out capability was 50 percent greater than actual storage withdrawals ten years ago. As of the year end 1989, the industry had peak storage capability of 700 Bcf, substantially above the actual withdrawals of 576 Bcf in 1988.

Need for New Pipeline Capacity in the Northeast

Our exemplary performance in December is even more impressive given the fact that pipeline deliveries to the Northeast are subject to physical capacity constraints that could be alleviated by the construction of additional pipeline capacity. As this Committee is aware, a number of pipeline construction projects are pending approval by the Federal Energy Regulatory Commission. Unless these pipelines are constructed, the Northeast will continue to be subject to limits on economic development. This is because the region is overly dependent on oil and its attendant price-volatility. Just how serious a problem this is for the region's residential consumers can be seen by considering how many households the Northeast use oil for househeating: 41 percent of households in the Northeast use oil as compared to 14 percent nationwide. (Source: Residential Energy Consumption Survey: Housing Characteristics 1987, Energy Information Administration, May, 1989.

Additional Surveys on Natural Gas Deliverability not Necessary

Finally, on the issue of natural gas deliverability, the Committee is certainly aware of the fact that both EIA and the FERC are in the process of exploring the issue. EIA is approaching deliverability from the standpoint of wellhead deliverability and is developing a database to assess the issue. FERC has sent out a survey of pipeline deliverability to the nation's interstate pipelines to evaluate the issue in the context of December's extraordinary conditions and the rise of open-access transportation. A.G.A. is cooperating with both regulatory endeavors and eagerly awaits the results. We are confident that they will show that our industry has the supply and resources to deliver natural gas when and where needed. We are also confident that these studies will show that there are regions of the country, such as the Northeast, that are suffering from a lack of sufficient pipeline capacity to meet growing energy needs. In addition to these efforts, the National Petroleum Council is considering a request by Energy Secretary Watkins to perform a study on constraints to expanding natural gas production, distribution and use. Thus, A.G.A. believes that the data collection that would be mandated by S. 2177 is unnecessary and will be overtaken by ongoing regulatory events.

Conclusion

For the reasons set forth above, A.G.A. opposes S. 2177 as being unnecessary and an unwarranted intrusion into matters that are currently being addressed at the state level and in legitimate natural gas contracting practices. We also concur in the oral testimony of John A. Gartman, Vice President, Gas Supply and Planning, Public Service Electric and Gas Company. We appreciate the opportunity to address the Subcommittee. If you or your staff wishes to discuss these matters, please call either me or Elaine Ziemba (841-8591).

Respectfully submitted,

Bud Lawrence

George H. Lawrence

cc: Members, Subcommittee on Energy Regulation and Conservation
Sen. J. Bennett Johnston
Sen. James A. McClure
Sen. Joseph I. Lieberman
Sen. Carl Levin

TABLE 1

GAS DELIVERIES (Million Cubic Feet)
Natural Gas Monthly

	December 1988		December 1989	
	Industrial	Elec. Gen.	Industrial	Elec. Gen.
Maine	79	0	125	0
New Hampshire	145	2	183	0
Vermont	183	0	119	1
Massachusetts	2,349	284	2,649	6
Connecticut	1,671	1	1,648	1
Rhode Island	334	0	307	0
New York	9,113	1,117	10,384	3,242
Subtotal	13,874	1,464	15,415	3,250
TOTAL	15,338		18,665	
	($4.8% of Annual Deliveries)		(4.7% of Annual Deliveries)	

Source: EIA

A.G.A. SAMPLE -- NORTHEAST REGION*

	December 1988	December 1989
A.G.A. Sample	9,759**	12,185**

*New England and Eastern New York.

**Includes industrial, electric generation sales and transportation to end-users.

TABLE 2

DECEMBER 1989 INTERRUPTIBLE CONTRACTS

NORTHEAST COMPANY	CUSTOMERS	REPORTED DUAL-FUEL CAPABILITY #6/#4 FUEL OIL	#2 FUEL OIL
BOSTON GAS	100	90%	10%
PHILADELPHIA GAS WORKS	NA	90%	10%
NEW JERSEY NATURAL GAS	29	100%	0%
CON EDISON COMPANY OF NEW YORK	NA	75%	25%
CONNECTICUT NATURAL GAS	100	83%	17%
SOUTHERN CONNECTICUT	116	100%	0%

State of Connecticut

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ATTORNEY GENERAL

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TESTIMONY
OF
STATE OF CONNECTICUT, ATTORNEY GENERAL
CLARINE NARDI RIDDLE
BEFORE THE
UNITED STATES SENATE
COMMITTEE ON ENERGY AND NATURAL RESOURCES

THURSDAY, JULY 26, 1990

Mister Chairman and distinguished members of the Senate Energy and Natural Resources Committee:

My name is Clarine Nardi Riddle and I am Attorney General of the State of Connecticut. I appreciate the opportunity to submit my testimony to the Committee in support of S.2177, which would establish price and inventory reporting requirements for heating fuel distributors, recommend adequate heating fuel inventory levels, require pre-season and supplemental inventory level submissions and study the interruptable natural gas market's role in the 1989-90 winter season fuel price increase.

As you are all painfully aware, in December, 1989, the wholesale and retail price of heating fuel oil and propane dramatically increased in Connecticut by over 50% in a few, short weeks. The sharp increase came without warning, wreaking havoc on the budgets of homeowners from Connecticut to California. Especially hard hit were the poor and the elderly on fixed incomes who could not readily afford the increase. Heating assistance programs also suffered as their dollars purchased fewer gallons of oil while demand for assistance rose.

In response to citizen demands for an explanation as to why this rapid increase occurred, Governor William A. O'Neill requested that my office, together with the Energy Division of the Office of Policy and Management and the Department of Consumer Protection, form the Heating Fuels Strike Force and launch an investigation into the price spike.

Later in January, the National Association of Attorneys General (NAAG), appointed General Ernest D. Preate of Pennsylvania, General Lacy H. Thornburg of North Carolina and me to study the causes of the price increase and report our findings and recommendations to NAAG. Both investigations are ongoing at this moment.

The investigations have been reviewing whether the industry conspired to take advantage of the heating fuel shortage, exacerbating the already shrinking supply of fuel for their own financial gain; whether price gouging took place; and the role of oil futures trading on the New York Mercantile Exchange.

In Connecticut, the Heating Fuels Strike Force has engaged in extensive and thorough factfinding. We have issued subpoenas to refiners and wholesalers in Connecticut asking for information on heating fuel supplies before, during and after the price increase, as well as information on potential fraud in the price quotation on oil delivery tickets.

Finally, we have issued questionnaires on the pricing, purchasing patterns and inventories of heating fuel and propane. Currently, we have hired expert assistance to review the data.

The issue is a complicated one. The heating fuel industry has many levels, from producer to retailer with complex purchasing and supply systems. Only a thorough review will yield an accurate assessment of the problem.

I realize that profit is not a bad word. However, profiteering is, and we seem to be finding some evidence of illegal activity. What makes this activity more appalling is that it affects so many people who cannot afford the high price of fuel and, yet, unlike the previous dramatic price rises in items such as coffee or sugar, they cannot "do without" until the price comes back down.

That is why legislation such as S.2177 is so important. We must have an early warning system. We must ensure that heating fuel inventories do not fall beyond a certain level without our knowledge. In that way, we will be able to take affirmative steps to mitigate the effects of another shortage and its attendent price increases.

In Connecticut, the Strike Force recommended, and the 1990 General Assembly approved, a bill which will require the largest heating fuel distributors to supply inventory and pricing information on a monthly basis to our Office of Policy and Management's Energy Division. Such information is readily available since the largest distributors are highly computerized. This information will be vitally important if we are to anticipate and perhaps avoid a recurrence of December, 1989. I have attached the legislation to my testimony.

S.2177 accomplishes a similar goal on a national level. A nationwide survey on inventory and pricing levels would supplement state-based information to create a system of overview that is likely to reduce the chances of another sharp price increase in heating fuel. This supplemental information is essential for effective planning since supply patterns are regional in nature rather than state based.

Further, the establishment of "adequate primary inventory levels" by the Department of Energy should provide better assurance that there will be enough heating fuel available for the needs of the citizens of the various states. Because heating fuel companies are not mandated to maintain these levels, this provision should not raise fuel prices. However, the recommended levels will provide a vital guideline for the federal government and the states to use in anticipating future shortages.

My office has reviewed the Congressional proposal with our Energy Division and offer several suggestions to improve the bill. I have attached to my testimony those suggestions with an explanation for each proposed amendment.

I strongly urge your support of S.2177 with our amendments.

Thank you.

COMMENTS OF THE INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA CONCERNING S. 2177

The Interstate Natural Gas Association of America (INGAA) is the trade association that represents U. S. interstate natural gas pipelines, as well as Canadian interproventlal pipelines. On behalf of our membership, INGAA requests that the following comments be included in the hearing record on S. 2177.

For the reasons described below, INGAA opposes S. 2177, with the exception of the proposed study by the Department of Energy in Section 5 of the bill. The other provisions of the bill involving inventory recommendations and reporting make little sense given the structure of today's natural gas markets. However, there may be useful insights that result from a study of the impact of interruptible gas customers on the demand for alternative fuels, and therefore INGAA can support such a study.

Section 2 of the bill requires the Energy Information Agency (EIA) to collect information on wellhead and citygate natural gas prices for major interstate pipelines and information concerning the levels of gas in underground storage on a weekly basis. Section 3 directs EIA to establish recommended inventory levels for gas in underground storage before each winter season.

While it would be possible for EIA to collect the price information, the effort would be considerable and it would be of little practical value. For example, wellhead prices for natural gas purchases vary between geographic areas. They also vary depending on the length of the purchase contract and a variety of terms and conditions. Spot prices, which do change weekly if not daily, will differ from pipeline system average purchase prices, which have much less variability within a given month. Finally, the data would not be available from the pipelines in a manner which would be sufficiently timely for the gas industry to respond to stressful conditions during peak months

Collecting this information on a weekly basis would require a major data collection effort. There is no centralized price posting mechanism, although several trade publications publish reports on price trends, based on information given to them on a confidential basis. Their reports are the most reliable source of market information today. For EIA to attempt to collect this information on a weekly basis would require a massive effort and it is unlikely to improve upon the price information provided in the trade press.

The larger question has to do with the value of the information. To the extent customers are buying gas from pipeline system supply, the prices are generally known. Pipelines file Purchase Gas Adjustment reports with the Federal Energy Regulatory Commission every six months that reflect the expected prices for the next six months, and the pipeline's transportation rate is regulated. Certainly pipeline customers know what these prices are as should the state commissions, who regulate the local distribution companies (LDCs).

Because local distribution companies are thoroughly regulated by state public service commissions, there is no lack of information and data about gas prices and purchasing decisions available to state energy officials. Indeed, in most states there has been discussion and debate about the purchasing practices of distribution companies and the extent to which they rely on the more volatile spot market purchases of gas in lieu of pipeline system supply gas. It's hard to understand how the additional information required by the bill would make any further contribution to this debate.

To the extent that gas customers are purchasing gas on the spot market, their costs will be subject to price swings due to seasonal and other factors that affect demand at the wellhead. After all, the purpose for buying on the spot market is to take advantage of low prices when possible. Spot prices do rise during the winter months when demand for gas increases, but it is difficult to imagine a market that is more competitive and less subject to potential manipulation. There are dozens, if not hundreds, of producers who sell gas on the spot market and numerous marketers who are in the business of matching buyers and sellers of gas. Certainly there is far less market concentration in the natural gas supply market than in the local fuel oil distribution system, for example. Pipeline and LDC rates are approved by federal and state regulatory authorities and are thus not subject to manipulation during times of high demand.

The bill would also have EIA collect information about the amount of gas in storage and recommend minimum storage levels. Pipelines do, of course, keep close track of the volumes of gas in storage and this information is reported now on a monthly basis. However, it would be misleading to rely on storage levels as a guide to the outlook of gas shortages. The amount of natural gas that can be held in storage is finite, limited by the physical capacities of storage fields. Also, because the cost of operating storage fields is included in pipeline rates, there is no economic penalty to the pipeline associated with maintaining full storage fields. In fact, there would be an economic penalty if the pipeline was unable to meet its service obligation. Thus the industry's storage is near 100% capacity at the beginning of every heating season.

Also, the amount of gas in storage has little to do with the likelihood that interruptible customers will in fact be interrupted. That is often a function of pipeline capacity. As distribution companies increase purchases of gas during the cold weather season, utilizing their entitlement to firm pipeline capacity, interruptible customers are then bumped off the system. Interruptible customers expect this to occur every year and should take steps well in advance to arrange for alternative fuel.

Of course, it is possible that an extended period of extremely cold weather over a sufficiently large portion of the country could exhaust supplies of gas in storage in a given region. However, in last year's December weather, which was the coldest in many years, the system performed with few disruptions.

There is a trend toward separating the various services offered by pipelines, including storage services. In the future, a distribution company may be able to choose how much storage capacity it wishes to purchase. If this occurs, the responsibility for maintaining adequate storage margins may shift more toward the LDC, but again, state regulators would be very much involved in reviewing such policies and decisions.

Finally, the bill does provide for a study of the impact of interruptible gas contracts on the demand for No. 2 fuel oil and propane during the 1989-90 winter. INGAA has no objection to such a study, although we seriously doubt that interruptible gas contracts had any significant bearing on the shortfalls of No. 2 fuel oil and propane. We assume that any such study would also look at other factors that contributed to the problems in those sectors.

In summary, INGAA opposes the natural gas provisions of S. 2177 concerning price and inventory reporting and the proposal for recommended minimum inventory levels. These provisions will not provide information that will be helpful in understanding natural gas supply conditions during winter months. The best long term solution is to encourage expansion of pipeline capacity in regions that are capacity constrained, such as the Northeast. Ironically, some of those interests now claiming that natural gas interruptions contributed to fuel oil price increases have opposed pipeline expansion projects.

We appreciate the opportunity to make these comments regarding S. 2177 and would respond to any questions the Subcommittee may on this subject.

NPGA
National PROPANE GAS Association
1235 Jefferson Davis Highway • Arlington, Virginia 22202 • 703/979-3560

July 26, 1990

TESTIMONY OF THE NATIONAL PROPANE GAS ASSOCIATION
BEFORE THE
SENATE SUBCOMMITTEE ON ENERGY REGULATION AND CONSERVATION
ON S. 2177

Mr. Chairman. My name is James N. Burroughs, Vice President of Government Relations and General Counsel of the National Propane Gas Association. I am pleased to present the views of NPGA on the disruptions in the energy markets last December and January.

The National Propane Gas Association (NPGA) is the national trade association of the propane gas industry with over 4,000 members including 43 affiliated state and regional associations. We represent all aspects of the industry including producers, transporters, equipment manufacturers, suppliers and retail marketers.

Propane gas, also known as liquefied petroleum gas, is used in over 18 million installations nationwide. About 7.8 million households use propane gas for heating, hot water, cooking and other uses; it is the primary heating fuel in 3.8 million homes. In addition, over half of America's farms use propane gas. Clearly, our industry had to respond as never before to this unprecedented combination of bitter cold and transportation/distribution disruptions.

The events of last winter have been discussed in many forums within our industry and reviewed at the highest level. The untold story is that almost every residential consumer had fuel. The average consumer was not aware of the monumental national effort that was being made to assure them of their supply. It is not possible to make money by "hitting" the customer for a single outrageous bill in time of extreme cold weather; our industry depends on long term, even life long business relationships with our customers. An angry customer has other energy options and there is no profit in alienating that person.

Without question, the abnormally cold weather drove the problems in December and the historic warm weather in January and February further compounded the difficulties in normal business operations. The coldest December in 60 years was followed by the warmest January in 57 years. Both conditions create substantial distortions in the market; many in the industry rely on the winter months to carry them through the year financially. Many in industry stated that there had never been such a winter as the one just passed. This is true since the odds of these two events occurring together are less than 1 in 333,000. It is therefore pointless to make criticisms based on lack of preparedness.

The National Propane Gas Association, its members and state propane gas associations acted quickly to determine the extent of the problem in December and to serve as an information resource for government at all levels, consumers, and other industry members. NPGA participated in government meetings in December and offered testimony at Congressional hearings in January.

NPGA SUPPLY TASK FORCE

After the acute problems had passed, NPGA leaders spent hours discussing the situation at several meetings in January. NPGA's President appointed a special Supply Task Force representing all segments of industry to analyze the events of this winter and to make recommendations to ameliorate the situation if a similar event should occur in the future.

The Supply Task Force reviewed the many news stories, industry accounts and government reports about the energy problems of December and January. The Task Force concluded that most of the problems in the supply transportation / distribution system were present and known in late December. NPGA had responded with a detailed statement of the situation on December 22, 1989 and distributed this information to government, industry and the press. In hindsight this statement was substantially correct in its identification of the problems and has been confirmed by both of EIA's reports.

Therefore, the Task Force recommended that NPGA play a key role in any future emergency by serving as an information clearinghouse and disseminating information in a similar manner as was done in December and January. To do this NPGA needs to expand its own information base and statistical collection activities. (This recommendation is being implemented within NPGA and NPGA is working with the Energy Information Administration of DOE to aid in their information collection process).

The Task Force examined the EIAs first report entitled "A Short-Term Analysis of Heating Fuel Market Behavior" dated 1/31/90. Most of the information in this first report was recently reinforced by EIAs second report on this matter published in June 1990. Important EIA conclusions were:

* "The price jump in December was triggered by the coldest December since at least 1939."

* "...in the face of extraordinary and unexpected increases in demand, petroleum markets performed as might have been expected: The distribution system responded to temporary imbalances in supply and demand through higher prices, which

were quickly followed by increase supplies and declining prices...."

* "A significant portion of the price spike occurred in response to news of problems in the supply system."

The December demand for propane supply was unprecedented at about 18.6 MMB; by contrast in 4 out of 5 years the December demand does not even reach 9 MMB.

NPGA SUPPLY TASK FORCE RECOMMENDATIONS

The final set of recommendations recognizes that we must address the two major problems, adequacy of supply and adequacy of distribution. These recommendations are made to both industry and the government recognizing that we all have an important role to play in a crisis.

1) DOT Relief. There are several steps that the U.S. Department of Transportation and individual states or localities can take now or at the time of emergency, to be of assistance. These include:

* Establishing a mechanism from Washington to issue blanket exemptions from hours of service rules for an entire industry, or a segment of the country, without requiring each company to apply locally or regionally.

* Providing relief from state and local routing restrictions.

* Providing exemptions from truck weight limitations.

* Providing exemptions from requirements for state certificates of authority so as to permit the interchange of delivery vehicles among marketers from one state to another.

2) Jones Act Waivers. Recognizing that there are only one or two U.S. flag propane vessels, that the government provide relief from the Jones Act that effectively prohibits the use of foreign flag vessels in time of emergency. Requests for waivers were long delayed in December, even though it was reported that the only known U.S. flag propane vessel was unavailable in the Pacific Ocean. These waivers could have helped relieve the serious problems in the New England region.

3) LIHEAP Changes. The Federal Low Income Home Energy Assistance Program should be altered to provide earlier payments to recipients of assistance so that they will be encouraged to fill up their tanks earlier in the fall, rather than waiting until December or January. In addition, funding for LIHEAP should be expanded.

4) Railroad Improvements. Recognizing that a shortage of railroad tank cars and the lack of railroad sidings are factors over which NPGA has little control, the Task Force nonetheless recommended that NPGA maintain close liaison with the American Association of Railroads and be prepared to

request their assistance at the time of an emergency to expedite the movement of rail cars.

5) Improve Supply and Demand Data. Coupled with the need to improve NPGAs own data collection process is the need to improve the data collection performed by the government, specifically the Energy Information Administration, and from the American Petroleum Institute.

6) Clearinghouse for States. Both state propane gas associations and state energy offices are in need of information during times of crisis, not only with respect to what is happening within the industry, but also regarding what is going on in other states. NPGA can and should serve as an informal information clearinghouse, insuring a free flow of information.

7) Recommendations to Industry.

* That marketers encourage consumers to participate in "keep full" or "budget plans" rather than will call service to minimize sudden demands for fuel fill-ups and to allow marketers to better plan in time of emergency.

* To reduce heavy demand in time of sudden cold, that marketers encourage summer and fall tank fill-ups so that consumers enter the heating season with full fuel tanks.

* All segments of the propane industry are asked to reassess their storage and delivery capabilities, and inventories practices.

* That long term consideration of these and other energy emergency matters be done by NPGA committees to be prepared for any future problem.

FUTURE ACTIVITIES

Both industry and government are reviewing the current status of the home heating fuel industry and speculating about what could happen in the future.

In the area of data collection, we stress the need to understand the macro view and not expend time and money on small storage facilities such as retail bulk plants which will not provide much useful information. Supply can be found at three levels: 1) Large scale storage found in producer storage, terminals and similar locations; 2) Smaller inventory found at bulk plants; and 3) Consumers storage tanks located on-site.

According to industry experts, about 80% of the large propane storage facilities in the country are controlled by 55 owners; this represents public and private storage totalling 169.6 MMB of storage capacity. This information could be easily retrieved. In contrast, a survey of the approximately

6,000 retail bulk storage plants would find only 4.3 MMB of capacity.

The retail bulk storage plant is designed to be served regularly by truck and rail delivery. These plants maintain several days supply in on-site storage. By analogy, a survey at this level would be akin to an attempt to determine the amount of food in the country by counting the amount of milk and bread on retail grocery store shelves. This storage is the last location in the transportation / distribution system, held for a few days until final distribution to the consumer. We urge that the government concentrate on the kinds of information that will be useful in giving the full view.

We also know that there has been concern about inventory levels. In the past eight years only one winter has been colder than normal. This warming trend may have contributed to a gradual lowering of inventory levels since 1980. However, since 1984, that amount has stabilized at about 60MMB going into the winter. Inventory levels in 1989 were comparable with the previous five years and not unusually low.

Current estimates show that inventory is building slower than in past years and stood at 35.6 MMB in May or about 8.4 MMB less than last year at the same time, according to API reports. New DOE inventory reports are expected in the next couple of days.

In recent weeks, the wholesale price of propane has been increasing and industry sources report that downstream stockpiling may be responsible for the low reported inventory numbers. It appears that marketers and wholesalers are building supply based on the belief that prices will continue to grow.

The U.S. has not had a high level of propane imports from the Middle East in recent years due to low wholesale prices. As prices rise, some within industry expect that imports from that region may increase helping to build major inventories.

CONCLUSION

NPGA believes that industry and government need to plan ahead and work together to facilitate problem resolution in times of crisis. We have suggested that government help lift the regulatory burden that may limit the amount of product that can be delivered in emergencies. We believe that secure funding for LIHEAP will protect the needy. Finally, NPGA thinks that the government can help by making more information about the market available sooner and in areas where little or no information is now available. It is a tenet of free enterprise that the best decisions are made by having complete knowledge of the market.

Direct government intervention in the marketplace, as shown by the price/supply regulation of the 1970s, is known not to work. We urge the Committee to support the workings of the market and refrain from attempting to replace regular business decisions with government mandated practices.

We thank you for considering our views and look forward to working with you in the future.

Respectfully submitted,

James N. Burroughs

James N. Burroughs
Vice President, Government
Relations and General Counsel

New England Fuel Institute
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TESTIMONY

of

CHARLES H. DOWNEY
PRESIDENT

of

BUCKLEY & SCOTT CO., INC.

on behalf of the

NEW ENGLAND FUEL INSTITUTE

on

S. 2177

before the

SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

SUBCOMMITTEE ON ENERGY REGULATION

July 26, 1990
Washington, D.C.

I. Introduction and Summary

The New England Fuel Institute ("NEFI") represents the retail heating oil sector throughout New England. NEFI includes more than 1,300 marketers of fuel oil and petroleum products, virtually all of whom are small and independent companies. They supply more than 3 million heating oil accounts -- mostly residential customers -- with more than 4 billion gallons of fuel oil each year. NEFI members compete, in every New England town and city, with each other and with gas and electric utilities. With very few exceptions, they own no crude oil production, refinery, tanker or pipeline facilities. They are labor intensive, employing more than 28,000 workers in skilled positions.

We appreciate the opportunity to testify on S. 2177. Frankly, this bill would do little to solve the problems that we, and our customers faced last December. The Energy Information Administration ("EIA") cannot make market decisions as well as the thousands of companies operating independently in the market place. However, EIA's surveys of prices and inventories, together with its recommended levels of inventories, will impose tremendous pressure on Congress to legislate mandatory storage levels or price controls. Either of these forms of market interference by the government will fail, as they did in the 1970's.

Even worse, S. 2177 will create pressure on states to enact legislation mandating product storage levels. Such legislation is already being considered seriously in Massachusetts. If a state inventory level falls below EIA's magic number, it may seek to require increased local product storage levels. This interference in the market would not create additional storage, but it would surely lead to decreased storage levels in other states. This, in turn, could create shortages in an emergency, and would certainly impose transport and logistical problems in supply.

Rather than suggesting the appropriate level of storage in each state, or in the region, the federal government should be encouraging markets to work freely and effectively, by preempting states which would seek to legislate a local supply surplus, to the disadvantage of its neighbors. In addition, Congress can take actions that would help to dampen the kind of supply/demand imbalance we faced last December. First, Congress should require storage for all natural gas interruptible customers who rely on heating oil during interruptions. This unanticipated surge in demand puts a tremendous strain on the heating oil distribution system and the availability of product. A storage requirement would physically increase available storage levels in the areas where product will be needed. Second, the Jones Act prohibitions against foreign flag transport in the coastal trade should be waived during a declared energy emergency. And third, the Department of Transportation restrictions on heating oil driver hours-of service also should be waived during any period of sustained cold weather. These actions would significantly alleviate transportation and supply bottlenecks, which are the principal causes of price run-ups and spot shortages during severe cold snaps.

Before detailing each of these solutions, I will review the principal causes of the price spike we faced last December.

II. The Causes of the Surge In Demand

A. Increased Demand From Heating Oil Consumers

Retail heating oil marketers performed heroically during the unprecedented cold snap that lasted from November 17, 1989 through December 31, 1989. During this period, Boston degree days averaged 43 per day: a record. December 1989 was the coldest December in New England in 119 years, and was 39 percent colder than normal. The mean temperature in Boston was only 21.6 degrees, which is 12.1 degrees colder than normal.

Moreover, this weather followed a decade of conservation by the heating oil industry, with significant reductions in average consumer use and storage capacity. As an example, Buckley & Scott's storage has declined by 25% since 1986. This is sypmtomatic of the entire industry.

It also followed a month of unusually cold weather in Europe, which limited availability of imports. Product storage levels in New England were slightly below last year's levels, but not unusually low, particularly given the National Weather Service long term forecast of a warmer than normal winter and lower annual usage by individual consumers required less inventory than in previous high consumption periods.

Despite this unprecedented increase in demand from our customers, we know of no heating oil consumer who went without heat because of a shortage of supply. The members of NEFI worked long, hard hours, day-in and day-out through this period. Employees and equipment were being used at full capacity -- and they met the test.

B. Surge in Demand By Interrupted Gas and Utility Customers

The difficulties in obtaining product from traditional suppliers and nearby terminals was complicated tremendously by the enormous surge in demand by non-traditional customers, which strained the capacity of the storage and delivery systems. These non-traditional customers are institutions, industrial customers, electric utilities and cogenerators that purchase natural gas on interruptible contracts. These customers have the capability to use either oil or gas. Electric utilities, in particular, were operating their turbines on distillate at maximum levels, and even exporting power to Canada! These oil users store little or no fuel oil in anticipation of interruptions, which occur annually, yet they expect the fuel oil industry to be available to serve their winter needs.

In years when the demand increment by these customers is slow and gradual, the effect on the heating oil market is moderate. However, in December 1989, these customers may have added 150,000 barrels per day in demand to the heating oil market. This massive incremental demand, with little storage by these customers to cushion its effect, was the added pressure point that drove heating oil prices sharply upward. As a consequence, the heating oil consumer is paying for the energy security of the interruptible gas customer. This unfairness should be remedied promptly.

The analysis of the price spike by EIA makes clear the substantial contribution of these temporary oil users to the problem.[1/] EIA estimates demand in December from these users at up to 141,000 barrels per day; but more significantly, points out that these users

> "may have significantly steepened the aggregate demand relationship between prices and total end-use sales. . . . In other words, the substantial presence of the non-residential sector was a surprise to December's markets, resulting in additional transportation and distribution problems, and possibly an acceleration in the bidding process for scarce supplies, thereby inducing overreaction to the cold weather and tight market conditions."[2/]

II. The Effect on the Retail Sector

Given the supply and demand conditions that existed in December, retail fuel oil dealers had no more control over prices than ultimate consumers. There was no possibility for retailers to shop around for lower priced supplies. Retail marketers needed product and needed it fast to guarantee that customers did

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[1/] An Analysis of Heating Fuel Market Behavior, 1989-1990 (June 1990).

[2/] *Id*. at p. 28.

not run out of fuel. Under these circumstances, dramatic price rises should not be unexpected. In fact, they are the inevitable consequence of an efficient market.

Unfortunately, retailers also had no choice but to pass through much of this price rise to their consumers. Retailers have little inventory, and therefore must sell their product at prices which approximate their cost to replace those supplies.

Retailers do not benefit from a price spike. In fact, such price volatility creates massive problems for the retail sector, in addition to the obvious problem of a margin squeeze. First, some customers simply cannot pay the higher price multiplied by the additional volumes consumed. In many cases, the retailer must write-off this loss. Second, even those consumers that can pay must often delay full payment. This significantly increases a retailer's accounts receivable which can create severe cash flow problems. Third, the high price of product strains retailers' credit lines with both banks and suppliers, sometimes making it impossible to continue to finance product purchases. Even if additional bank loans are available, the result is significantly higher costs. Fourth, operating expenses and logistical problems increase during such a period. All personnel must work extended overtime, and drivers must often make longer trips to obtain product where lengthy waits are not unusual.

The heating oil industry cannot eliminate this problem by storing greater quantities of fuel, whether or not aggregate storage levels are recommended by the federal government. Our members are not local monopolies, like gas or electric utilities. They are private competitors, with no guaranteed rate of return. No single independent competitor can store fuel sufficient to meet demand for a one in a hundred winter -- even for its own customers. Surely the entire industry, acting rationally, cannot be expected to purchase and store more fuel than will likely be needed even in a colder than normal winter. This would be commodity speculation, and could be economic suicide. In most years, the cost of holding excess inventory will exceed the benefit of having these supplies available during conditions of extreme demand. This is an insurance policy that marketers in a competitive environment cannot purchase.

III. The Solutions

It is impossible to eliminate price volatility for a commodity in a free market -- without major adverse consequences. Congress could, of course, impose price controls on petroleum products. However, as we learned in the 1970's, price controls create supply disincentives and allocation inequities. They create winners and losers, but do not provide overall benefits to society in the long run.

Similarly, it would be inappropriate to mandate product storage levels in the refinery or distribution sectors. Storage levels are a function of market requirements and demand expectations. Excessive storage is costly; it would be avoided if at all possible, and would be paid for by consumers where it could not be avoided. In addition, a storage program would necessarily be complex and difficult to administer. Questions such as required levels of storage for each product, locations of storage and timing of required storage would create a regulatory nightmare. Moreover, required storage at one level could easily lead to decreased storage at another point in the distribution system, thereby defeating the purpose of the program.

The provisions of S. 2177 concerning recommended inventory levels will do little, if anything, to alleviate the kinds of problems we faced last December. Additional EIA data collection and dissemination will not create greater inventories. It will only create political pressures to mandate the recommended inventory levels if they are not met voluntarily. Such data gathering will have absolutely no effect upon inventories, since these decisions are made company-by-company on the basis of the whole range of market information. EIA is far less equipped to make inventory decisions unilaterally than are thousands of business in the field acting independently based on their own market assessments. Those businesses will be wrong in the 1 in 100 winter; but you should have no confidence that EIA, working with similar information, would have performed better.

In any case, how could EIA, or any other agency of government, allocate the recommended level of storage among heating oil marketers? Unless we return to the rigid control mechanisms of the 1970's -- which were acknowledged failures -- government cannot order particular levels of storage by specific companies. Further, EIA does not have current information on markets. At all times, EIA would (at best) be one year behind actual market conditions. EIA cannot track increases, or decreases, in an individual company's market share or customer base. At best, EIA could generate a broad estimate, possibly a range, of recommended storage levels for each region. It should certainly not recommend specific inventory levels for particular states. But frankly, recommended storage levels by EIA would add nothing useful to the information already available from API, the Weather Service and other sources.

There are three effective mechanisms available to increase supply and dampen spikes in heating oil prices. Congress should address each of these items.

A. Storage for Interruptible Gas Customers

First, a storage requirement should be imposed on all interruptible natural gas customers which historically have required heating oil during the coldest parts of the heating season. Year-round heating oil customers store product because they know it will be needed during the winter. Interruptible customers should also store product because they too know it will be needed during the winter. Yet, many store no product at all and most store not enough for even a single cold snap.

This storage is as important for price stability as storage by distributors or storage at the homeowner level. If interruptible customers had 60 days of fuel oil supply in storage on December 1, or even 30 days supply, logistical problems would have been minimized and price increases to home heating oil customers would have been much less dramatic. A requirement that interruptible natural gas customers store or have available to them a 60 day supply of alternative fuel -- based on recent historical experience -- would significantly reduce the surge in demand, and the consequent spike in prices, caused by a severe cold weather period.

In addition, gas utilities should be required to provide interruptible customers with at least 2 days notice before interrupting their gas supplies. This would help prevent the price shopping that occurs when interruptions take place on only several hours notice.

The provision of S. 2177 for a study of the impact of natural gas interruptions and recommendations concerning storage requirements is unnecessary. The EIA analysis already concluded that interruptible gas customers accounted for up to 141,000 barrels per day last December. No further study of this problem is needed; action is required.

B. Statutory Jones Act Waivers

Second, the Jones Act should be amended to permit automatic waivers for fuel oil cargoes during periods of supply emergency. The Jones Act, 46 U.S.C. § 883, requires that all shipments of goods between ports in the U.S. be made on U.S. flag vessels. The only ground for waiver of this requirement is national defense, and the agency charged with making that determination is the Customs Service.[3] There is no provision for waiver to meet energy emergencies, and the Secretary of Energy has only a consultative function. The present system of case-by-case waivers being decided by the Customs Service is anachronistic and frustrates an effective response.

It is outrageous that not a single waiver of the Jones Act was granted during this period for fuel oil cargoes, despite the strenuous efforts of the DOE. Although Jones Act waivers for fuel oil may not have eliminated the entire problem, they would have provided needed supplies to tight markets, and offered options for marketers that did not want to pay the high prices being sought for supplies available in the region. The Jones Act should be waived by a finding of the Department of Energy that a regional energy supply emergency exists. Such a waiver would allow prompt shipment of needed product on foreign flag vessels for as long as that emergency continues.

C. Transportation Waivers

Third, Department of Transportation restrictions on drivers' hours of service also should be waived during a period of emergency. Such a waiver should apply to both interstate and intrastate operations. The present system of case-by-case waivers applicable only to interstate transportation is cumbersome and inadequate to permit efficient distribution of product during periods of extreme cold weather.

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[3] 46 U.S.C. Ch. 1 Note. This waiver is automatic if requested by the Secretary of Defense.

Both the difficulties of obtaining case-by-case waivers from the FHWA and the failure of several states to act on this matter suggest that waivers of these restrictions should be automatic in emergency conditions. Surprisingly, waivers for carriers delivering Christmas packages are automatic, while delivery of essential heating oil in an emergency is not. Accordingly, the Department of Energy, in consultation with the Department of Transportation, should be permitted to suspend hours of service restrictions for both interstate and intrastate drivers during periods of defined energy emergency.

If these actions had been taken in December, 1989, the sharpness and severity of the price spike would have been greatly diminished. NEFI understands that these solutions are not all within the jurisdiction of this Committee, but rather than pursue ineffective remedies that are within your jurisdiction, we recommend that you work with other Committees to craft an effective response promptly, so that similar difficulties are avoided in the future.

Statement of

Christopher Dyson
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submitted to the

Subcommittee on Energy Regulation and Conservation

Committee on Energy and Natural Resources

United States Senate

on

EIA's Analysis of the 1989-1990 Heating Fuels Crisis and S. 2177

July 26, 1990

A CRITIQUE OF THE ENERGY INFORMATION ADMINISTRATION'S REPORT ON THE 1989-1990 HEATING FUELS CRISIS

Public Citizen believes that the Energy Information Administration's (EIA) report An Analysis of Heating Fuel Market Behavior is not a credible account of the 1989-1990 heating fuels crisis. Public Citizen objects to the EIA analysis for the following reasons:

1) The EIA report grossly understates the role of low inventory levels in the recent crisis, thus contradicting recent statements by the EIA's own Administrator.

The EIA report implies that low distillate stocks were not a significant cause. "In summary," the EIA report says, "since inventories seemed adequate as late as Thanksgiving, and monthly distillate production reached 3.3 MMBD in December 1989, the bulk of the price increases can be explained by the enormous increase in demand in December 1989, with the remainder due to exacerbating factors including refinery and distribution problems, and relatively low imports." The report admits that distillate levels have declined steadily in the 1980s, and that Fall 1989 inventory levels were well below 1988 levels. It argues, however, that Fall 1989 levels were about the same as in Fall 1987, and thus not "particularly low" in a "historical context". [See charts A and B for an illustration of this downward trend in distillate inventory levels.]

This conclusion directly contradicts statements made by EIA Administrator Helmut Merklein in testimony before a Subcommittee of the House Appropriations Committee in April 1990 [see Attachment #1 for transcript]. After being pressed by Representative Chester Atkins (D-MA), Dr. Merklein admitted that inventory levels were a "very significant" contributory factor in the recent price runup.

The EIA report's dismissal of the inventory factor also contradicts the findings of the five other major studies that have been done on the recent crisis. All these reports identify low inventory levels as a significant factor in the price increases. For example the New Jersey Board of Public Utilities report on the crisis found that "the price increases would have been lower if refiners, terminals, and dealers had had more supplies in storage at the start of the winter to meet unanticipated demands." Attorneys General Task Force Reports on Winter Heating Oil Crisis concludes that, "Major oil and propane companies entered the winter heating season with inventory levels which were unusually low ... Additional inventories at the start of the heating season would have tempered the price increases."

The EIA report also supports its conclusions on the inventory issue with faulty reasoning and flagrant miscomparisons. For example, the report argues that 1989 inventories levels were "about the same as those at the beginning of the heating season 2 years ago." It is true that national distillate inventory levels at the end of October were at 121 million barrels (MMB) in both 1987 and 1989. However, at the end of November, right before the cold snap occurred, 1989 inventory levels were only at 119 MMB compared to 129 MMB in 1987, the lowest levels this decade. [See Graph C]

The EIA further neglects to mention that the fall of 1987 was itself a period of record low distillate inventories. In addition, the report fails to note that December 1987 was much warmer than in 1989, and thus healthy distillate inventories levels were not as important. In New England, December 1987 was 8% warmer than normal, and 42% warmer than December 1989. In fact, December 1987 was so warm that East Coast disillate inventories actually increased over the course of the month.

The report also ignores the basic fact that industry relied heavily on distillate inventories during the crisis. As Graph D illustrates, stock drawdowns were the largest part of distillate product supplied since the last heating fuels crisis in 1983. National consumption of distillate stocks in December 1989 was 213% greater than in December 1988 and 261% greater than in December 1987. Since supply shortages and record price increases occurred despite these record drawdowns, it is clear that distillate inventories were not sufficient.

The recent crisis also proved that regional stockpiles, in particular, were inadequate. It has long been known that in periods of large and unexpected demand, it is crucial to have supplies that are close to the area of greatest consumption. A 1982 General Accounting Office (GAO) report observed:

> In the event of an unanticipated increase in distillate demand, it would take about three weeks for additional, new orders of supplies to reach the Northeast from Gulf Coast by pipelines. Using tankers, deliveries of additional supplies from Gulf Coast and Carribean refineries can take between 3 and 5 days if tankers are available when needed -- an assumption which DOE officials do not believe is realistic since most tankers are booked months in advance. Until these additional supplies could be delivered, unanticipated increases in distillate demand would have to be met primarily by withdrawals from inventories and/or increased production from local refineries.

This analysis proved correct in the winter of 1983-1984 when unexpected and sustained cold weather and distribution problems caused a massive drawdown of local distillate inventories. Unfortunately inventories were at historical lows at the time, and were not sufficient to prevent considerable price increases.

The 1989-1990 crisis followed the same pattern. At the end of November, East Coast distillate inventories were at record low levels (see Graph E). When the cold snap hit, these stockpiles proved too depleted to meet the additional demand. This forced the industry to rely too heavily on sources of supplies outside the Northeast. As the 1982 GAO report had predicted, insufficient shipping was available, and pipelines and imports proved too slow. These supply problems were a major cause of the price runup. It is clear that if Northeastern stockpiles had been adequate, these outside supplies would not have been as neccessary, and their price impact would have been greatly reduced.

2) The EIA report fails to examine why the U.S. was exporting so much distillate before and during the crisis.

The EIA report makes no mention of an important factor in the crisis --- the high levels of U.S. distillate exports in November and December 1989 (see Graphs F and G). Although exports are normally not very important, the tight distillate supply situation in late 1989 gave them much greater impact.

For example, in every November since 1983 distillate inventories have been built up in preparation for the winter. In November 1989, however, inventories dropped by 2 MMB, helping to facilitate the December disaster. The following chart explains why (all numbers are in MMB; a negative stock change indicates a drawdown):

	Nov. 1986	Nov. 1987	Nov. 1988	Nov. 1989
Refinery Production	2.91	3.04	2.90	3.08
Imports	0.23	0.18	0.31	0.30
Stock Change	0.21	0.26	0.03	- 0.07
Exports	0.07	0.06	0.03	0.12
Product Supplied (Demand)	2.86	2.90	3.15	3.33

The chart shows that in November 1989 production and imports were at normal levels. However, very high exports and slightly colder weather forced a drawdown in stocks. If exports had been at average levels -- 50,000 barrels per day (BPD) -- inventories would have held steady, and an extra 2 MMB of distillate would have been available for the December freeze.

Even more disturbing is the fact that in December 1989, when the U.S. oil industry was supposedly doing its utmost to meet record domestic demand, the industry was exporting a very healthy 130,000 BPD of distillate. This compares to a rate of 87,000 BPD in 1988, 92,000 BPD in the balmy December of 1987, and 55,000 in 1986. Although one might argue that these exports were needed to relieve the tight distillate situation in Europe during this period, this was not the case. None of the November 1989 exports went to Europe, and only 12% of the December 1989 ones. Most of the exports went to countries such as Japan, Venezuela, and Canada.

3) The EIA report claims that low distillate inventory levels were not the outcome of collusive behavior, even though the EIA's own statistical analysis indicates the opposite

The EIA report concluded that the low distillate stock levels were not the result of collusive behavior. EIA based this on its analysis of stocking patterns of the 20 largest inventory holders for the August through October period over the last 4 years. The agency found that while fewer suppliers added to stocks in Aug. '89 compared to Aug. '88, more built stocks in Sept. & Oct. 1989 than in the same period in '88.

The fact that more suppliers in Sept.-Oct. '89 were building stocks than in Sept.-Oct. '88, however, is poor evidence that suppliers in 1989 were not restraining inventory levels. First inventory levels in September and October 1988 were well above levels in both 1987 and 1989, and thus industry had little reason to build them higher. Furthermore, the main issue is not how many companies increased stocks in Fall '89, but whether these companies built stocks up enough to meet winter needs. Both inventory levels and subsequent events show that this was not the case. Although the oil industry in 1989 probably could not have anticipated that December would be so cold, it knew it was taking a risk by entering the winter with stockpiles at levels 7% below the previous record low levels.

Unbelievably, EIA completely discounted a second analysis it had conducted, which showed a high degree of parallel behavior among companies holding inventory in the Fall of 1989. For this analysis, EIA had calculated a statistical measure of dispersion for each month from January 1986 to February 1990. Lower values of this statistic indicate that stocking behavior has become more similar. The analysis showed that the level of dispersion has fallen since 1986 and was at a record low in the fall of 1989. However, the EIA report dismissed this fact without any just cause, and did not even mention it in the report's Executive Summary.

4) The EIA report claims that the distillate market was not concentrated using faulty assumptions of market size that renders its analysis meaningless.

EIA concluded that the distillate market "is not concentrated, nor has concentration generally increased over the last few years." It came to this conclusion by using a concentration measure which is used by the Antitrust Division of the Department of Justice. This concentration measure found that PADD IA (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont) and PADD V (Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii) were moderately concentrated while all other regions were unconcentrated.

However, EIA's whole analysis was based on the faulty premise that "the PADDs define a geographic market appropriate for antitrust purposes." This assumption has no grounding in reality. It is ridiculous to say that marketers in Washington D.C and New York compete for the same heating oil dealers. Actual distillate markets are much smaller than this, and are usually no bigger than the metropolitan area of a large city. EIA's concentration numbers are thus largely meaningless.

5) The EIA report uses misleading comparisons to depict refinery and marketing profits as mediocre. It also fails to answer the basic question of where did the money go.

EIA acknowledged that "the unanticipated December runup in heating oil prices had a positive impact on the financial performance of refiners and marketers." However, it concluded that "the U.S. refining sector fared poorly in terms of financial results during the 1989-1990 heating season, compared with the same period in 1988-1989." The report noted that "income from major petroleum companies' U.S. refining/marketing operations fell 70% in the fourth quarter of 1989 and 48% in the first quarter of 1990, compared with the same quarters of the previous year."

Since EIA could not locate enough marketers with financial reports, the EIA analyzed marketer profitability by studying heating oil margins. The agency found that dealer margins increased 32% from November to December 1989, and another 13% in January 1990. Margins then fell slightly in February, but remained well above normal levels. EIA remarked, however, "these increases do not necessarily translate into increased profits for heating oil dealers."

The report's analysis of profits, however, is very misleading to compare 1989 refinery profits with 1988 levels. The year 1988 was one of extraordinary downstream profitability. In 1988 Exxon's downstream earnings were up 254% from the previous year, Mobil's were up 370.3%, Chevron's were up 225.7%, and Texaco's were up 748.5%. To say 1989 profits were not good because they were down from 1988 levels is extremely deceptive. EIA's own chart shows that, with the exception of 1988, the return on investment for major energy companies' refining and marketing operations in 1989 was the best in the decade.

The EIA report also does not address the issue of whether industry profited excessively from the sale of distillate during the crisis. Since distillate is less than 25% of refinery output, total refinery profits do not reveal what industry made from distillate alone. It is quite possible that industry took a killing in distillate to offset mediocre results from the sales of other products such as gasoline. Certainly EIA's data shows that refining and marketing distillate margins were very healthy during the crisis.

Finally the EIA report fails to answer the basic question of where the money went. There is little doubt that consumers paid hundreds of millions of additional dollars during the crisis. If one is to believe EIA's account, the money disappeared into thin air.

6) The EIA report underestimates average heating oil consumption, and thus underestimates the amount of extra money consumers spent in the crisis.

EIA claims that average expenditure for the 1989-1990 heating season was $445, compared to $374 the year before. The report estimated that Northeastern consumers spent $400 million more in December '89 than in December '88.

However, EIA is basing its expenditure figures on unrealistic consumption estimates. A $445 expenditure means that a household is only using about 400 gallons of heating oil during the heating season. This doesn't agree with the heating oil industry's own estimates of average consumption. According to a September 1989 estimate of the publication Fueloil & Oil Heat, the average yearly gallons consumed per customer varies from about 700 gallons in the South Atlantic to over 1000 gallons in Metropolitan New York. Since heating oil use is concentrated in New York and New England, the mean consumption is probably at the high end of this range. Considering that almost all heating oil is consumed during the heating season, EIA's estimate of 400 gallons consumed seems absurdly low. Consequently, the economic damage of the December price spike is probably much higher than EIA's estimate of $400 million.

7) EIA report's claim that the oil industry reacted appropriately during the recent crisis is not supported by the EIA's own facts and analyses.

EIA concluded "while there may have been isolated cases in which margins and profits were unusually high and consumers paid very high prices, the market as a whole functioned well under extremely difficult circumstances."

It is difficult to characterize the record low propane and distillate inventories, record high retail and wholesale prices, supply shortages, and refinery breakdowns chronicled in the EIA report as evidence of the oil industry "functioning well". The performance of the industry in December 1989 was nothing short of disastrous. It is frightful to imagine what might have happened if January 1990 had not been the warmest January in 57 years.

Even some of EIA's own analyses demonstrate that the industry did not act responsibly during the crisis. For example, the EIA used historical data to determine the relationship between heating oil prices and crude oil costs, weather, and inventory levels (p. 21). EIA then used a regression analysis to forecast what heating oil prices should have been during the 1989-1990 crisis. The regression analysis found out that actual prices during the crisis were 10 cents per gallon higher then they should have been. In a similar analysis (pp. 64-65), EIA found that refiner margins in December and January were higher than they should have been based on past trends. EIA, however, misinterpreted the first of these analyses in their Executive Summary, and gave no mention of the other.

WHY BILL S. 2177 IS NECESSARY:

Reason # 1: The Energy Information Administration (EIA) is not collecting important heating fuel data in a timely manner.

One of Congress' main reasons for creating the EIA was to collect the data needed to anticipate future energy crises, mitigate current ones, and, at minimum, understand past crises. The heating fuels crisis of 1989-1990, however, demonstrated that the EIA is still not collecting important energy data in a timely enough manner. The absence of this data hampered EIA's ability to forsee the crisis, and limited the agency's ability to understand its causes. Bill S. 2177, which requires EIA to collect weekly fuel oil and propane price and inventory data on a National, PADD, and State level basis, would go far to improve the agency's performance.

Past experience has shown the importance of weekly price data in analyzing crises. In 1984 the General Accounting Office (GAO) cited a lack of weekly fuel price data as one of the reasons why it was unable to give Congress a capable analysis of the 1983-1984 heating fuel crisis. "Sales and price data are generally available only monthly, not daily or weekly," the GAO lamented. "This limitation is important because a monthly average figure cannot reflect changes within that month. Having more detailed data would facilitate an analysis of developments during a particular week, for example."

EIA, however, still does not have weekly heating oil data. In 1984, in response to the heating fuels crisis of the previous winter, the State Heating Oil Program (SHOP) was established. SHOP required EIA to work with states to implement biweekly surveys of heating oil prices and inventory levels. In February 1988, however, EIA cut state grants to SHOP. As a result some states dropped out of SHOP, while others reduced the frequency and quality of their surveys. For the last two years SHOP data has been published monthly instead of biweekly. This past winter EIA published the Winter Distillate Report once on December 4, 1989 right before the crisis started, and next on January 2, 1990. Thus for most of December, EIA had no information on actual retail or wholesale No. 2 prices.

EIA's propane price and supply data has been even less timely. At the time of the crisis, EIA only published propane price and supply data in its Petroleum Marketing Monthly (PMM). Since EIA regularly publishes the PMM two to three months after the fact, EIA propane price data for December 1989 normally would not have been available until March 1990.

There is little doubt that weekly propane supply information could have been helpful in averting the crisis. By the end of October 1989 Midwest propane stocks were 22% below 1988 levels, and by November 1989 they were nearly 30% lower. If EIA had collected weekly propane data, it would have known this long before the crisis occurred. Unfortunately, EIA did not learn of the problems until December 19 when a major propane stockpiler told the agency it was declaring force majeure on all its contracts. As EIA Administrator Helmut Merklein termed it, EIA officials had been "caught with our pants down."

In response to the crisis, EIA has instituted a new propane price survey beginning in February 1990. However, EIA has stated that this survey will only be used "whenever emergency conditions warrant its use." In other words, EIA would use the propane survey only after a crisis had occurred, instead of using it to anticipate future crises. In addition, because the weekly propane survey is not required by law, it is vulnerable to the actions of the Office of Management and Budget (OMB). In the past, OMB has eliminated many EIA surveys, but has learned to leave those required by statute alone.

Although EIA already does publish weekly primary distillate inventory information on a national and PADD region basis, it does not publish State or PADD subregion data this frequently. In addition, while EIA's authorizing legislation clearly requires the collection of monthly supply data, it only requires weekly data to be collected when the Administrator deems it "appropriate." Although OMB has not forced the elimination of the WPSR, in 1988 it forced EIA to provide a lengthy supplementary justification for the existence of its weekly supply data. Bill S. 2177 would guarantee the weekly collection of inventory data, and improve the detail of the numbers.

Reason # 2: The Department of Energy is failing to give Congress and the public sufficient notice about the adequacy or inadequacy of prewinter fuel stockpiles.

The crisis of 1989-1990 has clearly shown that inventories of heating oil and propane were insufficient to meet strong December '89 demand (see pg 1-2 for more on this). Yet in the months before the crisis, the EIA issued no statements indicating that these low inventory levels were a potential problem. On the contrary, EIA's statements assumed a reassuring tone. In the October 27 1989 and November 3 1989 issues of the Weekly Petroleum Status Report (WPSR) EIA acknowledged that distillate inventories were "below the average range for the past three years" but quickly noted that levels were still "well above the minimum operating inventory level."

In contrast, industry experts were not as sanguine. While all did not predict disaster, some acknowledged the risks of entering the winter with record low inventory levels. For example, on November 3 1989 Peter Beutel of Elders Futures Inc. 1989 stated:

> Sooner or later, there will be not enough heating oil in stock in the right places to keep all the Yankees from freezing in the dark, and this could be the year. With distillate stocks already 7.86 percent lower than a year ago, they are flirting with 17 year (plus) lows. No one can accurately predict the weather more than a week ahead, but if it gets and stays really cold this winter, look for prices to launch their own space program.

EIA, however, refused to inject even a hint of caution into its assessments. In subsequent issues of the WPSR EIA failed to issue a single warning, even though inventory levels and temperatures continued to drop precipitously.

To understand why EIA failed to express concern about the low inventory levels, Public Citizen recently used the Freedom of Information Act to obtain internal EIA documents concerning the crisis. In one of these internal reports -- the Winter Distillate Outlook (WDO) -- EIA made weekly forecasts of distillate supply and demand based on past quarterly forecasts, with adjustments for recent data. The following chart compares actual distillate supply figures for December 1989 with those from the December 1st WDO forecast (all figures = millions of barrels per day; percentage in parentheses = difference from actual):

	Actual	"Normal Weather" WDO Forecast	"Adverse Weather" WDO Forecast
Refinery Output	3.27	3.14 (-4%)	3.20 (-2%)
Net Imports	0.19	0.34 (+78%)	0.35 (+81%)
Stock Drawdown	0.45	0.09 (-80%)	0.15 (-66%)
Product Supplied (Demand)	3.91	3.56 (-9%)	3.71 (-5%)

The chart shows that EIA greatly underestimated distillate demand, even for its "Adverse Weather" scenario. While EIA had predicted that colder weather would add 150,000 additional barrels per day (BPD) to consumption, 350,000 BPD were actually added in December 1989. It also overestimated the level of distillate imports by some 160,000 BPD.

The EIA's botched forecast appears to be due to a number of major oversights. First, its "Adverse Weather" scenario assumed that the colder weather would be spread out over the course of the winter. Its scenario did not anticipate that the added cold might be concentrated within a single month, as actually happened.

Second, EIA failed to account for an obvious downward trend in imports at the end of 1989. It was well known at the time that Europe was suffering through a cold spell that limited its ability to export distillate. In fact EIA's own weekly data had dramatically illustrated this import drought. From October 28 to November 24, U.S. net distillate imports had averaged 123,000 BPD instead of the 320,000 BPD as the agency had forecasted. Yet at the end of November, EIA did not revise its December forecast to account for this trend.

Another problem with EIA forecasting is its blind confidence in the Minimum Operating Inventory (MOI). Before the crisis, EIA's rosy outlook was largely based on the fact that distillate inventories, although historically low, were still "well above the minimum operating inventory level." The MOI is a threshold for inventory adequacy devised by the National Petroleum Council (NPC), a government advisory council largely made up of oil industry experts. The NPC defines the Minimum Operating Inventory level for national primary distillate stockpiles as 85 million barrels.

The MOI, however, is a suspect yardstick of inventory adequacy. The winter crises of 1989-1990 and 1983-1984 have raised serious questions about its accuracy. In both these crises, spot shortages and large price increases occurred, even though inventory levels were well above the MOI. The MOI also is suspect because it was created by an oil industry that has shown a desire in recent years to keep lower and lower inventory levels. By setting the MOI artificially low, the industry could well be using it to justify its stocking behavior.

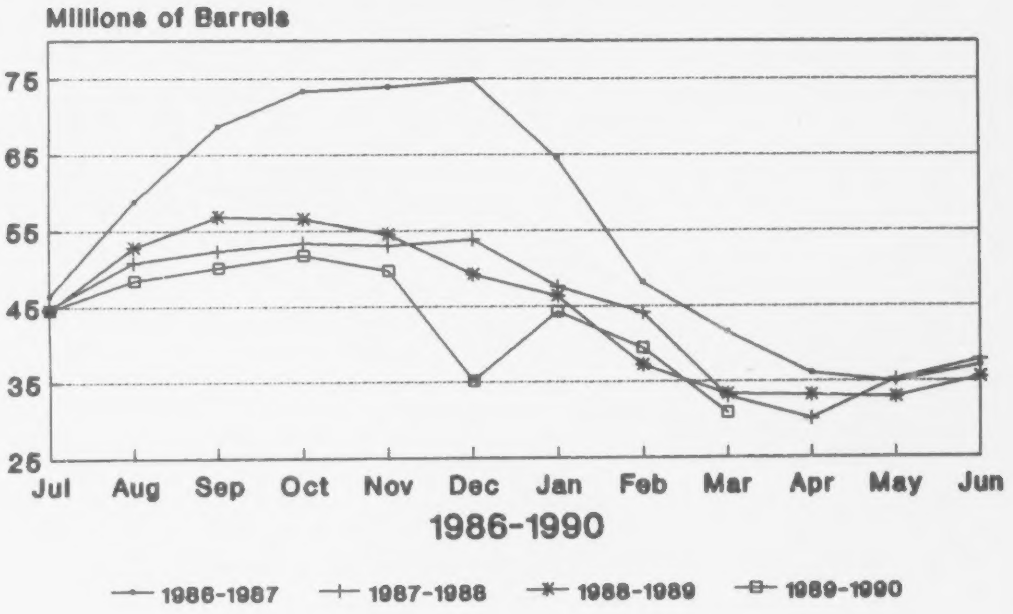
It is interesting to note that until recently the MOI for distillate was set at 105 million barrels. However, after two straight years when pre-Winter stock levels fell ever closer to the MOI, in 1989 the NPC lowered the MOI to 85 million barrels. The NPC's justification for the reduction was that inventory levels had fallen below 105 million barrels a number of times with no ill effects. However, the NPC failed to note that these instances had all occurred in the Spring, when distillate demand is light and inventories are not needed. The new or old MOIs have never been tested under peak winter conditions. The closest call came at the end of this past December when distillate inventories fell to 106 million barrels. However, luckily for the industry, January 1990 was the warmest January in 57 years, and stocks were actually increased.

Bill S. 2177 would do much to prevent the mistakes of last winter. By requiring the Department of Energy (DOE) to report yearly to Congress on pre-Winter fuel inventory levels, the bill would force the EIA to more seriously assess stock adequacy. By making the DOE work with the State energy offices to produce a new yardstick of inventory sufficiency, bill S. 2177 would end current reliance on the oil industry's suspect MOI.

The provisions of bill S. 2177, however, are not enough. As long as EIA uses flawed forecasting methods, its recommended "Adequate Inventory Levels" will be equally suspect. Congress should require the General Accounting Office to investigate why EIA failed to forsee the current crisis, and recommend how EIA could improve its forecasting methods.

Graph A

Primary Distillate Stocks
East Coast

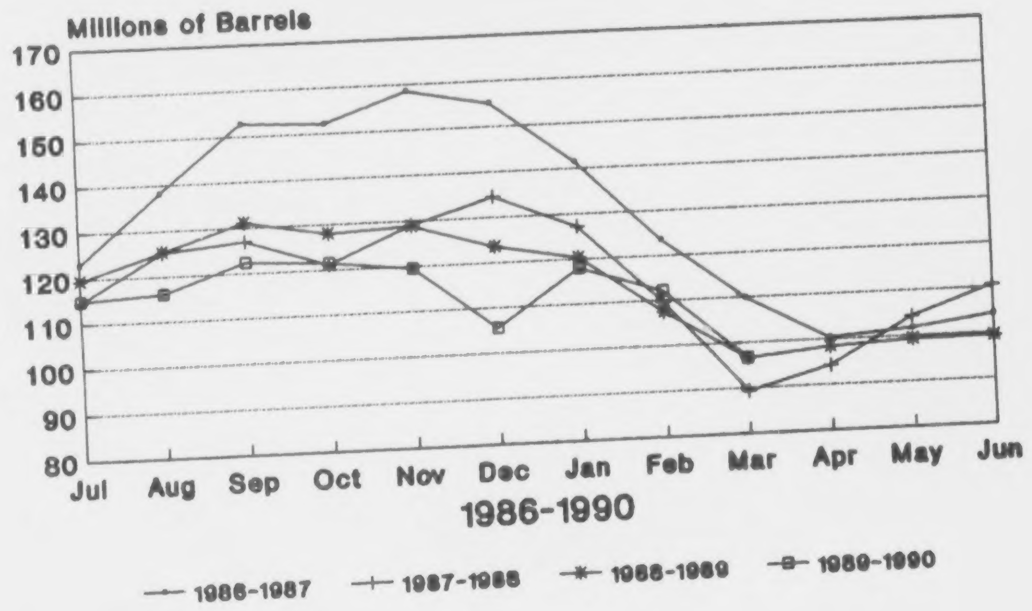


Source: EIA

Graph B

Primary Distillate Stocks

United States

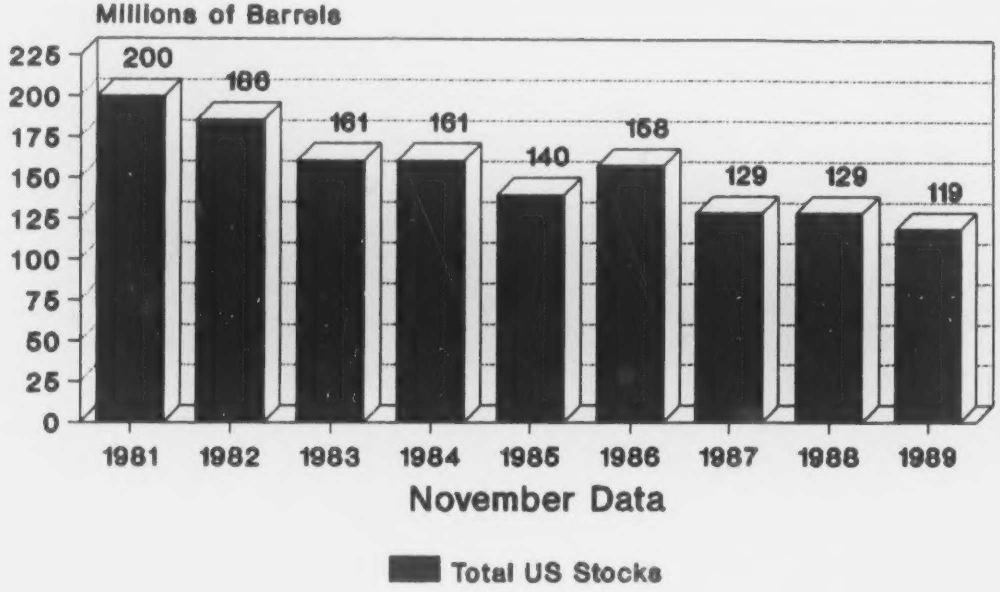


Source: EIA

Graph C

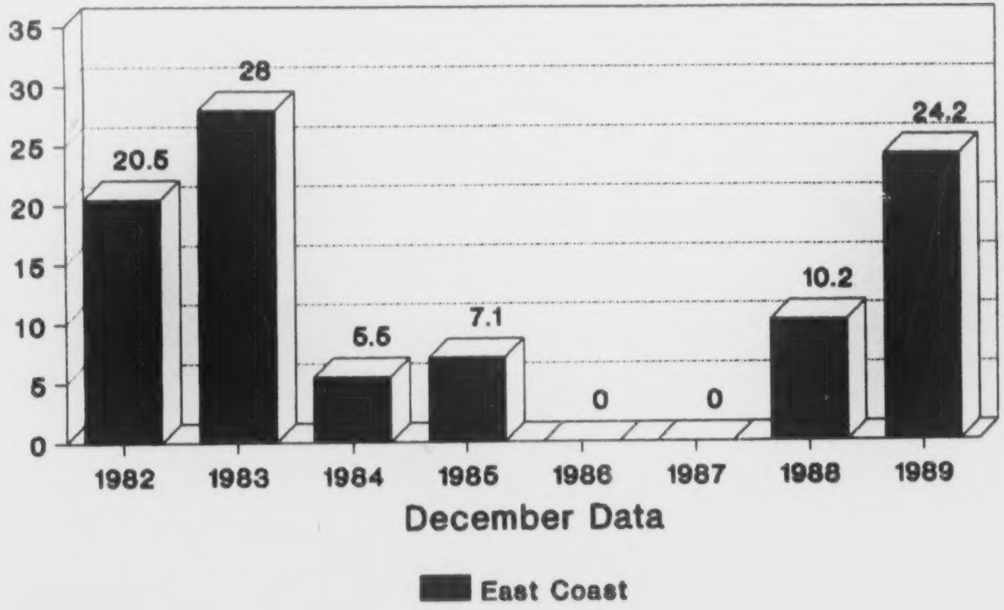
Distillate Fuel Oil Ending Stocks

United States



Source: EIA

Graph D

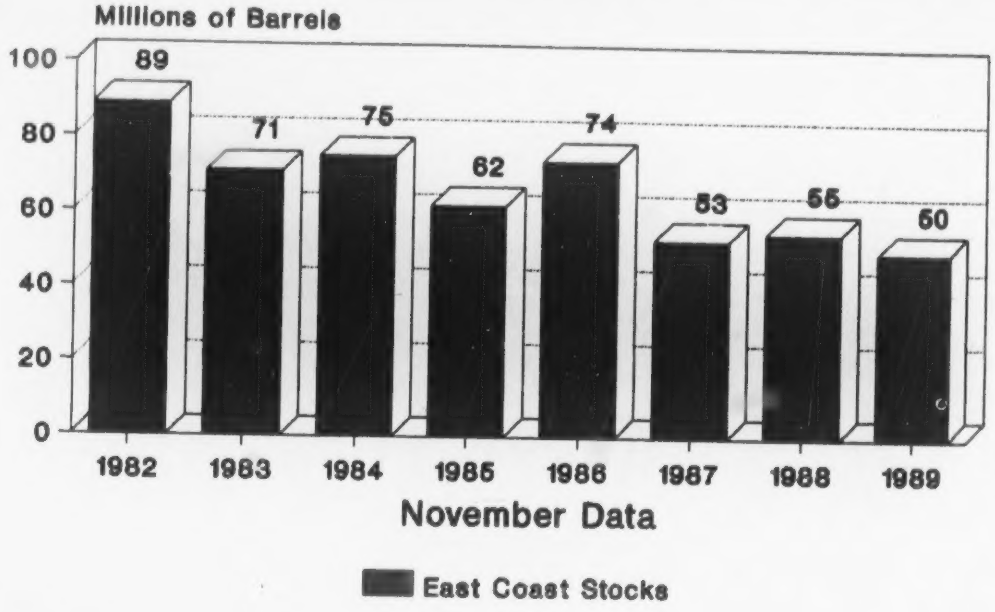


Stock Drawdown as % of Product Supplied
December Data 1982-1989

Source: EIA

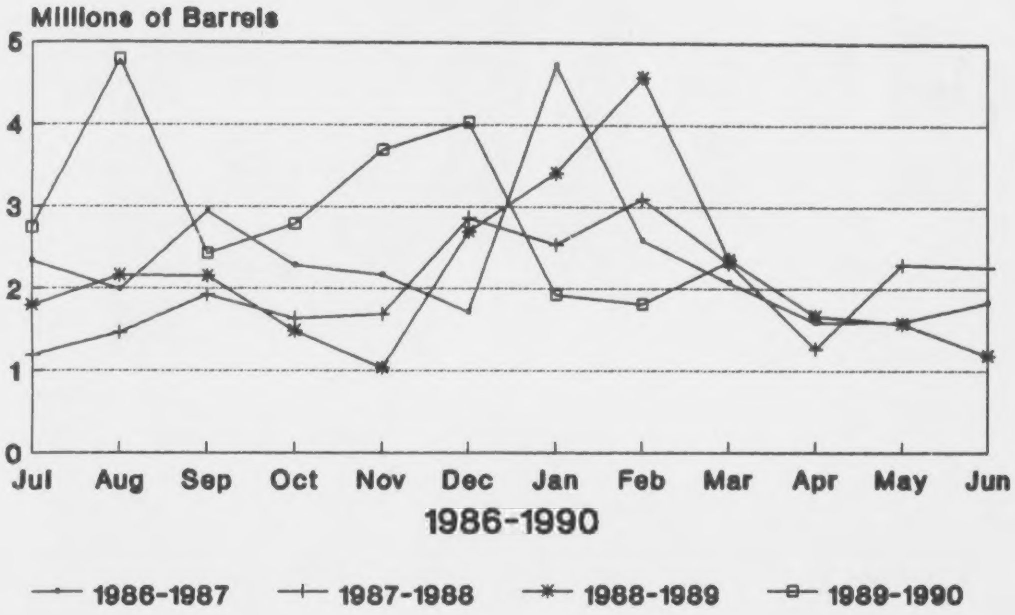
Graph E

Distillate Fuel Oil Ending Stocks
East Coast



Source: EIA

Graph F



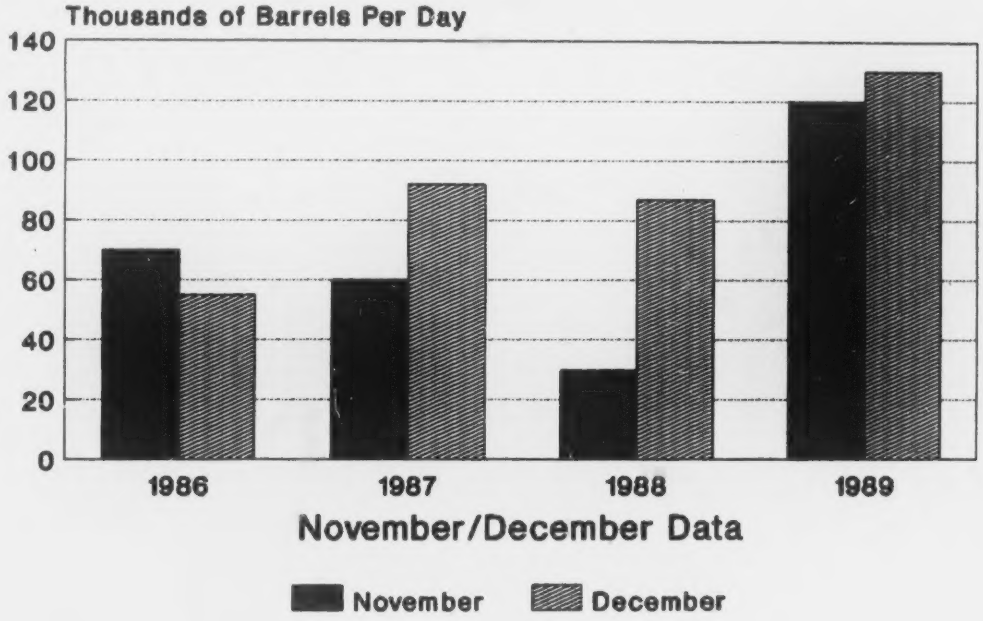
Total Distillate Exports

United States

Source: EIA

Graph G

Distillate Export Levels - Nov./Dec.
United States



Source: EIA

Statement
of
Philip J. Lombardo
Managing Director of Marketing
Enron Gas Liquids
Enron Corp
to the
Subcommittee on Energy Regulation and Conservation
Senate Energy and Natural Resources Committee
on
S. 2177
July 26, 1990

Chairman Wirth and members of the Subcommittee on Energy Regulation and Conservation:

My name is Philip J. Lombardo, Managing Director of Marketing for Enron Gas Liquids, an operating division of Enron Liquid Fuels, whose parent company is Enron Corp. headquartered in Houston, Tx.

Enron Gas Liquids is involved in marketing natural gas liquids worldwide. With sales in excess of 4 billion gallons in 1989, EGL is among the leading marketers of gas liquids in the world today. Our activities include both the purchase and sale of propane, butanes, natural gasoline, and ethane on a daily basis. We have supply and purchase contracts that span the globe as well as 49 states, domestically. We supply liquids to a variety of markets including petrochemical plants, refineries, natural gas utilities, multi-state retailers and wholesale accounts.

My duties as Managing Director of Marketing brought me in direct contact with the energy shortages experienced throughout the U. S. in December, 1989 and even more intimately with those on the East Coast. During this time, I directed Enron's effort to secure a waiver of the Jones Act in an effort to ship propane from the U.S. Gulf Coast into the East Coast to help relieve the shortage there. Unfortunately, the U.S. Government review process of this request took time and the vessel set sail for a foreign port prior to our receipt of approval.

Enron Gas Liquids had a Spanish flagged vessel, the Butadiez, loading propane in the Gulf Coast of Texas, for delivery into Italy, at the time of our waiver request. Propane prices in the Northeast began to soar as fuel became nearly totally unavailable. We received numerous pleas from state agencies and utility companies for relief. There are but three sources of propane supply to the Northeast: Canadian imports, pipeline deliveries and off shore imports. Canada was experiencing the same shortages and was exporting very little propane into the States, and the pipeline couldn't handle this high demand. This left ship imports as the only viable solution. As we had a vessel within two day delivery of the troubled East Coast, a Jones Act Waiver is all that stood between an emergency energy situation and some palliation.

The following is a chronology of our interaction with the government on this matter.

1. December 21, 1989 - Contacted Mr. Mike Atschely, local senior official with U. S. Customs and was referred to Messrs. James Fritz and Paul Heglund who are attorneys for the Customs Office of Regulations and Rulings in Washington, D.C.

2. An application was provided to us so that we could telefax the application for expediency. We were assured that this would be acted on as quickly as possible after its receipt. Mr. Fritz advised us that there were other applications "in the works" at that time.

3. We also contacted the Houston office of the Department of Commerce requesting any assistance that they could offer in this matter. We were advised that a D.O.C. official would contact us late in the day to advise us further on the necessary steps. We did not receive this call.

4. A formal application was faxed to Mr. Fritz. The need for expediency was stressed as our vessel was to complete loading and set sail this p.m. December 26, 1989 @ 1630 hours was established as the absolute deadline for diverting the vessel in a commercially feasible manner.

5. December 22, 1989 - Successful negotiations were accomplished to divert this vessel from its original customer destination and reschedule delivery into the East Coast. Arrangements were also made for a delivery into Naples, where the vessel was originally scheduled. We were informed that a meeting was scheduled for December 23rd, supposedly at the behest of the Defense Department, "to discuss this matter". The Department of Energy office of energy emergencies was faxed a copy of our application for waiver and offered their assistance in contacting Customs and Defense.

6. December 26, 1989 - We were advised by Enron's Washington representative that he had learned that the Defense Department was sympathetic, but felt they were unable to endorse a waiver unless it was consigned to a military destination. Enron stated its willingness to provide this much needed fuel to local distributors for delivery to residential users but it could be utilized in a military installation, should that need exist.

7. December 28, 1989 - (one week after our formal application and two days after the vessel had passed final deviation point) Mr. Heglund was advised by Customs that they may be able to do something for us.

While we were disappointed that the waiver was not granted, we were impressed with the considerable efforts put forth by the Department of Energy's senior officials handling energy emergencies to secure approval.

The supply of propane we would have made available, if the waiver had been granted, was small but it could have helped alleviate the problem and contain price increases until other supply arrived to meet the temporary shortages caused by the unseasonably severe weather.

The need to carefully review any and all requests for waivers to this Act are obvious and appreciated however consumer and military emergencies that could affect the public welfare should warrant a waiver.

Based on our experience with this waiver process we would offer the following recommendations for improvement:

The establishment of an intergovernmental review board, composed of a representative from the U. S. Customs, Deparment of Energy, Deparment of Transportation, and Department of Defense to review waiver requests would be suggested. Emergency waiver requests from state government officials should be given prompt attention by this board.

There is also legislation before you, S.2177 introduced by Senator Lieberman and others, that proposes ways to disseminate information relating to the supply and pricing of winter heating fuels which are important to the conduct of the LPG business. I would like to take this opportunity to comment briefly on its several key proposals.

Minimum Inventory Levels

The precipitous drop in propane prices in 1986 and the drive for economic efficiency produced two responses from producers, wholesales and retailers that exacerbated the December problem: Fewer barrels were held in inventory because of high carrying costs and the strategic shift by retailers favoring spot purchases over firm purchases to hedge against possible losses.

To prescribe minimum inventory levels would require some type of tax incentive or guarantee to those that were effected. One must assume that these mandates would have to be imposed on all propane marketers regardless of size. The issue of where these barrels would be inventoried and by whom raises more questions.

To initiate a reporting system to monitor inventory levels that would be reviewed by a panel of experts would seem feasible. To prescribe required inventory levels appears unrealistic.

Minimum Storage Capacity

This would apply basically to interruptible natural gas customers and companies. They can substantially draw down available propane supplies in a very short period of time. A minimum storage capacity might be imposed on these customers as a prerequisite to obtaining interruptible gas rates.

Survey of Fuel Prices and Inventories

As evidenced in December 1989, pricing was a direct result of low supplies in the face of high demand. As soon as supply could meet the demand, prices fell just as quickly as they had risen. A pricing survey would reveal any impending shortage after the fact and not before. This would result in marginal benefit. However, weekly reports of current inventory levels might warn of potential shortages and allow alternate measures to be taken by producers, retailers and wholesalers.

Senator Wirth and members of the Subcommittee, I thank you for the opportunity to relate my experiences in an unsuccessful attempt to provide much needed propane to the East Coast during the energy shortfall in December 1989. I believe that an improved waiver review process could greatly relieve the impact of any future emergencies. Also, I appreciate the opportunity to comment on S.2177 and hope that it will be helpful to you in your deliberations.

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